THE
GARDENER'S POCKET DICTIONARY
IN THREE VOLUMES.

VOL. I.

FIRST DIVISION;

CONTAINING

HARDY TREES, AND SHRUBS.

THE

GARDENER'S POCKET DICTIONARY;

OR,

A SYSTEMATIC ARRANGEMENT

OF

TREES, SHRUBS, HERBS, FLOWERS, AND FRUITS;

AGREEABLE TO THE LINNÆAN METHOD:

WITH

THEIR LATIN AND ENGLISH NAMES,

THEIR

USES, PROPAGATION, AND CULTURE,

IN

GARDENS, PLANTATIONS, GREENHOUSES, AND HOT-HOUSES,

Alphabetically divided under the following Heads, viz.

HARDY TREES AND SHRUBS,
HARDY HERBACEOUS PLANTS,
GREEN-HOUSE PLANTS,
HOT-HOUSE PLANTS.

The Whole comprehending Directions for the General PRACTICE of GARDENING;

And forming a Daily Remembrancer to Gardeners, Nurserymen, Florists, Seedsmen and all Lovers of GARDENING.

BY JOHN ABERCROMBIE,

Author of MAWE'S GARDENER'S KALENDAR, and other Works.

VOL. I.

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ADVERTISEMENT.

THE evident deſign of this Publication, is to furniſh the Practical Gardener with a commodious Dictionary of his Art: it may indeed be conſidered as a ſort of pocket-companion; for the work being divided under diſtinct alphabetical heads, any one of the volumes will be occaſionally ſufficient for his purpoſe upon that particular branch of Gardening which may happen to be the object of his attention.

But the merit of this work will not be eſtimated, it is hoped, by its conciſeneſs alone. The improvements herein attempted, and the numerous plants deſcribed, which of

of late years have been introduced and cultivated in England, form a broader baſis, on which its recommendation muſt reſt.

With reſpect to literary reputation the Author, in this, as in his former volumes, has aimed at nothing more than to render clear and intelligible what his profeſſional experience, through life, has taught him:—and to deliver it with all poſſible regard to truth. He conſiders himſelf merely as endeavouring to inform and aſſiſt thoſe who wiſh for inſtruction: leaving the ornaments of ſtile to modern theoriſts and authors by profeſſion: who find their account, not in writing from their own labours, but in compiling from the writings of others.

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THE

Gardener's Pocket Dictionary.

FIRST DIVISION.

HARDY TREES AND SHRUBS.

THIS Diviſion comprehends the great and valuable woody tribe of *Hardy Trees and Shrubs*, both deciduous and ever-green, that ſucceed in the open ground; conſiſting of *Foreſt Trees*, *Fruit Trees*, *Ornamental Trees*, and *Flowering Shrubs*, for the various plantations of woods, foreſts, groves, avenues, ſhrubberies, wilderneſſes, thickets, clumps, orchards, vineyards, hedges, &c. The whole is arranged ſyſtematically; the numerous ſpecies and varieties claſſed under their proper families, or genera, agreeable to the Linnæan ſexual ſyſtem; the botanic claſs and order to which each genus belongs is diſtinguiſhed, with the claſſic, generic, and ſpecific Latin and Engliſh names; and a compendious deſcription given of the characters of each genus, and of the various ſpecies, with their uſes and general culture.

A.

ACER, MAPLE TREE. Of the claſs and order *Polygamia monoecia*.

The *Maple* is an extenſive and valuable genus, comprehending a conſiderable family of very eminent deciduous foreſt and ornamental trees, of a ſingularly free and goodly

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growth, adorned with large elegant ſimple leaves, divided or lobated, more or leſs, into three or five lobes; and with pentapetalous or five-leaved greeniſh flowers, collected into large racemoſe cluſters, corymboſe and aggregate bunches; having monophyllous or one-leaved cups, *(calyx)* a corolla (flower-leaves) of five petals, eight ſtamina with ſingle anthera, a compreſſed germen, elevating a ſingle ſtyle, with two ſtigmas, ſucceeded by large cluſters of winged capſular ſeed-pods, containing each one ſeed.

The ſpecies are,

1. ACER *campeſtre*. Wild, or Common Smaller Maple. *(Tri-lobated bluntly-notched leaves.)*

2. ACER *Pſeudo-platanus, (Pſeudo-platanus)*. Greater Maple, or Sycamore Tree. *(Five-lobed unequally-ſerrated leaves, and racemoſe cluſters of flowers.)*

Variegated-leaved Sycamore.

3. ACER *Platanoides, (Platanoides)*. Plane-tree-leaved Norway Maple. *(Sharply five-lobed, acute-indented ſmooth leaves, and corymboſe bunches of flowers.)*

Jagged-leaved Norway Maple.

Variegated-leaved Norway Maple.

4. ACER *Negundo, (Negundo)*. Aſh-leaved Virginia Maple. *(Compound three and five-lobed leaves.)*

5. ACER *ſaccharinum*. Sacchariferous, or Sugar American Maple. *(Five-lobed palmated leaves.)*

6. ACER *penſylvanicum*. Penſylvanian Mountain Maple. *(Three-lobed acute-ſawed leaves.)*

7. ACER *rubrum*. Red or Scarlet-flowered Virginia Maple. *(Five-lobed indented leaves, whitiſh underneath, and aggregate bunches of ſcarlet flowers.)*

Sir Charles Wager's Pale Scarlet Maple.

8. ACER *monſpeſſulanum*. Montpelier Smooth-leaved Maple. *(Three-lobed unſerrated ſmooth leaves.)*

9. ACER *creticum*. Cretan Downy-leaved Maple. *(Tri-lobated entire leaves, downy underneath.)*

10. ACER *tartaricum*. Tartarian Heart-leaved Maple. *(Heart-formed, undivided, ſerrated leaves.)*

11. ACER *Opalus, (Opalus)* or Italian cut-leaved Maple. *(Large roundiſh, lobated, cut leaves.)*

Theſe eminent trees are all of quick growth, and of conſiderable altitude, obtaining from twenty or thirty, to forty, fifty, and ſixty feet, or more, and of the deciduous tribe,

tribe, expanding their leaves only in ſummer: they produce their large bunches of flowers in May and June, ſucceeded by cluſters of ſeed capſules, ripe in autumn, proper for ſowing, to propagate the different ſpecies. They all have great merit both to join in the collection of foreſt or timber trees, in forming woods, foreſts, timber plantations, and coppices for underwood, &c. and alſo to arrange in concert in compoſing avenues, groves, clumps, &c. in extenſive pleaſure-grounds, lawns, parks, fields, and any out grounds, ſides of hills, or hedge-rows, and to diverſify all ornamental plantations; and as ſhady and defenſive groves and thickets, to defend the interior plantations from impetuous blaſts in expoſed ſituations, as they will proſper in the moſt tempeſtuous expoſures, but more particularly the *Acer Pſeudo-platanus*, or Greater Maple, Norway and Aſh-leaved Maples, and other large kinds. They will all thrive in any common ſoil, and will effect a very diſtinguiſhable and agreeable variety in their luxuriant and different lobated foliage.

They are natives of Europe and North America. The *Acer campeſtre* is very abundant in England, in hedge-rows, woods, &c. as ſtandards, pollards, and underwood; likewiſe, the Sycamore grows naturally in many parts of England, &c.

The propagation of all the ſorts is by ſeed, ſown either in October, or November, or not till February, in beds of light earth, drilled, or bedded in, an inch deep. When the ſeedling plants are a year or two old, ſet them out in nurſery-rows, two or three feet aſunder, training each to a ſingle ſtem, by pruning off all the ſtrong ſide ſhoots, permitting the main leader to run up in height; and when advanced from about four or five, to ſix or eight feet, they are then proper for final tranſplantation.

The varieties of the particular ſpecies may be continued more certainly the ſame, by propagating them by layers and cuttings of the young ſhoots, or by grafting or budding them upon any of the common Maple ſtock.

ÆSCULUS, Horse Chesnut Tree. Of the claſs and order *Heptandria monogynia*.

This eminent genus compriſes two moſt elegant deciduous ornamental trees, adorned with beautiful regular

heads of conic growth, making remarkably long large ſhoots, garniſhed with luxuriant digitated, or fingered leaves, compoſed each of ſix or ſeven large, long, diſtinct lobes, joining at the baſe to one common petiole, thence expanding like the fingers of the hand; and with large fragrant flowers, arranged in beautiful pyramidical ſpikes, growing erectly, and very conſpicuous to ſight; each flower having a one-leaved, five-parted cup, or calyx, a corolla of five roundiſh petals, ſeven or eight ſtamina with erect anthera, a roundiſh germen, ſupporting a ſimple ſtyle with a pointed ſtigma; and the calyx ſucceeds to a large prickly trilocular capſule, furniſhed with one or two large brown nuts.

The ſpecies are,

Æsculus *Hippo-caſtanum, (Hippo-caſtanum)* or Common Horſe-Cheſnut. *(Seven-lobed leaves, and flowers with ſeven ſtamina.)*

Varieties.

Common White-flowered, tinged with red.
White ſtriped-leaved.
Yellow, or Gold-ſtriped leaved.
Yellow-flowered.

Æsculus *Pavia, (Pavia)* or Scarlet Horſe Cheſnut. *(Six or ſeven lobed leaves, and ſcarlet flowers with eight ſtamina.)*

Theſe are moſt beautiful ſummer trees, of graceful form, and remarkably ſwift growers; the firſt ſort obtaining thirty or forty feet in height, or more, the other twenty or thirty; both of the deciduous kind, diſcloſing their large digitated foliage in ſummer, accompanied by ſingularly ornamental flowers in noble erect ſpikes, in May and June, ſucceeded by large pericarpiums, containing the large nuts, ripe in autumn, fit only to ſow for propagation, not eatable, except by ſwine and deer. They are originally of foreign growth, the firſt of Aſia, the other of North America, but grow freely here in the open ground.

Both the ſpecies demand univerſal eſteem as trees of ornament and ſhade, and are peculiarly calculated to adorn avenues, groves, ſhady walks, rural ſeats, viſtas, and the boundaries of ſpacious lawns; as alſo to diverſify fields, hedge-rows. &c. in ranges and groups, and to diſpoſe as

ſingle

ſingle objects on any capacious graſs grounds. Being arranged at ſufficient diſtances, they will branch into moſt beautiful uniform heads, which, clothed in ſummer with exuberant foliage, and delightful flowers, exhibit an auguſt and entertaining appearance.

The Common Horſe Cheſnut may alſo be diſpoſed in the foreſt-tree plantation: the timber, though not ſtrong, ſerves for various utenſils and light purpoſes. They are expeditiouſly propagated by planting the nuts either in October or November; or, being preſerved in ſand till February, then depoſited in drills two or three inches deep, the drills a foot aſunder, they will come up in April or May enſuing; and at a year or two old, you may plant them out, pruning their downright tap-roots, and ſetting them in nurſery-lines, at a yard diſtance: let them be trained with clean ſingle ſtems, continuing the leading ſhoot entire; and when two or three yards high, plant them out finally, any time from November till March.

The Scarlet ſort is alſo propagated by layers, and by grafting and budding in the common Horſe-Cheſnut ſtock.

AMORPHA, Bastard Indigo. Of the claſs and order *Tetradynamia ſiliculoſa*.

It is a deciduous flowering ſhrub, with long pinnated leaves, and long ſpikes of papilionaceous purple flowers; having monophyllous tubular cups, a corolla with an erect vexillum, ten diadelphous ſtamina, and one ſtyle, ſucceeded by ſhort pods with two ſeeds.

There is but one ſpecies, viz.

Amorpha *fruticoſa*. Shrub *Amorpha*, or Baſtard Indigo of Carolina.

This is a very ornamental ſhrub, and is eaſily raiſed from ſeeds ſown in the ſpring, in a bed of good earth, and by layers of the young branches in ſpring, ſummer, and autumn, which will be rooted, fit for tranſplanting in the nurſery, in one ſummer's growth.

AMYGDALUS, Almond Tree. Peach and Nectarine. Of the claſs and order *Icoſandria monogynia*.

The *Amygdalus* compriſes moſt valuable fruit and ornamental trees, conſiſting of the Common Almond, Peach, and Nectarine, all of the moderate tree growth and deciduous tribe, ornamented with long ſpear-ſhaped leaves, and pale-red hermaphrodite, pentapetalous flow-

ers, ſingly, and in pairs, along the ſides of the young ſhoots; having one leaved, five-parted cups, a corolla of five oval petals, twenty or more ſtamina with ſimple anthera, a round germen having a ſimple ſtyle, with a round ſtigma, ſucceeded in the germen by a large oval downy fruit, including a hard nut or ſtone, containing a kernel, which, in the Almond, is the only eatable part; but that in the Peach and Nectarine, is the entire outer fleſhy part, ſurrounding the ſtone.

The ſpecies are,

AMYGDALUS *communis.* Common Almond Tree. *Spear-ſhaped, ſawed leaves, glandulous at the baſe, and twin flowers.*

Varieties of the tree.

Common Red-flowered Almond-tree.
White-flowered Almond tree.
Silvery-leaved Eaſtern Almond tree.

Varieties of the fruit.

Sweet-kernelled Almond.
Bitter-kernelled Almond.
Soft-ſhelled Almond.
Hard-ſhelled Almond.

AMYGDALUS *nana.* Dwarf Peach-leaved Almond Tree. *(Smaller leaves leſſened at the baſe.)*

Common ſingle-flowered Dwarf Almond.
Double-flowered Dwarf Almond.

AMYGDALUS *Perſica, (Perſica)* or Peach Tree. *(Spear-ſhaped, ſharply-ſawed leaves, without glands at the baſe, and the flowers placed ſingly.)*

Varieties of the tree.

Common ſingle-flowering Peach Tree.
Double-flowered Peach Tree.
Dwarf Peach Tree.

Varieties of the fruit.

Small Early Nutmeg peach
Early Anne peach
Small Mignon peach
Early Purple peach
White Magdalen peach
Early Newington peach
Old Newington peach
Great Mignon peach
Chancellor peach
Mountauban peach
Late Purple peach
Nobleſſe peach
Bellegarde peach
Yellow Alberge peach
Chevereuſe peach
Bourdine peach

Admi-

Admirable peach
Roſſana peach
Royal George peach
Venus-breaſt peach
Sion peach
Nevette peach
Rambouillet peach
Violet peach
Periſque peach
Portugal peach
Malta peach
Liſle peach
Bloody peach
Carliſle peach
Eaton peach
Swalſh peach
Belle de Vetrie peach
Catharine peach
Monſtrous Pavy
Cambray peach
Narbonne peach

Theſe being the principal varieties of the Peach, they ripen in ſucceſſive order from the end of July, until the latter end of October.

In the varieties of the Peach, the Botaniſts include the Nectarine, as it diſcovers no ſpecific diſtinction from the Peach, either in the growth of the tree, leaves, or flowers, though a very obvious one in the fruit: it is, however, conſidered only as an accidental variety of the Peach, and by ſome affirmed to have been found growing naturally on the Peach trees, along with Peaches. This, however, we never had the opportunity of obſerving; nor ſhall we endeavour to inculcate the belief of it, as there is ſuch an apparent difference in the fruit, the Peach having a downy rind, and ſoft pulp; and the Nectarine, a ſmooth, firm rind, and a quite firm fleſh; and of which, like the Peach, there are ſeveral valuable varieties, as below:

AMYGDALUS *Nuci-Perſica, (Nuci-Perſica)* or Nectarine Tree. *(Having leaves and flowers not diſtinguiſhable from the Peach tree.)*

Varieties of the fruit are,

Early nectarine
Elruge nectarine
Newington nectarine
Violet nectarine
Scarlet nectarine
Red Roman nectarine
Temple nectarine
Murry-coloured nectarine
Golden nectarine
Brugnon nectarine
Italian nectarine
Peterborough nectarine.

The trees of the Almond, Peach, and Nectarine, grow fifteen or twenty feet high; produce numerous long ſtrait ſhoots annually, for ſucceſſion-bearing wood; for all theſe trees produce their flowers and fruit moſtly on the ſhoots of a year old, and riſe immediately from the eyes of the ſhoots,

ſhoots, and ſometimes on ſmall ſpurs of a year or two old, emitted from the two-years mother wood: but the fruit is moſtly produced on the yearling ſhoots, *i. e.* thoſe produced the year before. The ſame ſhoots bear only once, though they produce at the ſame time both the preſe t crop of fruit, and a ſupply of young ſhoots for ſucceſſion-bearers next year, particularly the Peach and Nectarine: ſo that, as theſe two laſt named trees are commonly trained as wall trees, and require an annual pruning, in performing this neceſſary operation, you muſt be careful to retain an abundant ſupply of every year's ſhoots to lay in for next year's bearers, and at the ſame time, in the winter pruning, to cut out part of the former year's bearers and naked branches, to make room to train the main ſupply of young wood, arranged five or ſix inches diſtance, for the production of the ſucceeding ſummer's fruit.

All the ſpecies, viz. Almonds, Peaches, and Nectarines, bloſſom early in the ſpring, about February, March, or April. The Almond is the earlieſt in flower, which in all the ſorts is ſucceeded by a large oval roundiſh fruit, having in the Almond and Peach a rind downy and ſoft, but, in the Nectarine, always ſmooth and firm. In the Almond, the pulp of the fruit is leathery, hard, and not fit to eat, only the kernel contained in the ſtone; but in the Peach and Nectarine, the pulp is fleſhy, ſucculent, rich, and palatable, and is the only edible part of thoſe fruits. The Almond ſeldom ripens its kernel fit to eat until September, when the leathery cover opens, and diſcharges the ſtone on the ground.

Of the Almond, the ſweet and ſoft-ſhelled kinds are the principal ſorts for eating; but of the Peach and Nectarine, all the varieties are valuable; ſome, however, more ſo than others. Some are valued principally for their early perfection; others for ripening late, thereby continuing the ſucceſſion two or three months.

For gardens of ſmall dimenſions, chuſe a few of the beſt varieties, ſuch as the Nutmegs, for their earlieſt ripening, the Anne Peach, Small Mignon, Early Newington, Great Mignon, Montauban, Red Magdalen, Belle-garde, Bourdine, Late Newington, Admirable, Belle Chevereuſe, Venus Breaſt, Purple Peach, Royal Peach, and the Catharine, a moſt beautiful and fine Peach.

The

The Common Almond is valuable both as a fruit tree, and for the ornament of its early bloom: they are generally trained as half and full ſtandards, with clean ſtems, from four or five, to ſix or ſeven feet high, branching out at top into full heads; and are planted both as ſtandards in gardens, and orchards as fruit trees; in the ſhrubbery and ornamental plantations, or in lawns and fore-courts, for the ornament of their early bloom.

But the *Amygdalus nana*, or Dwarf Almond, is always cultivated as a firſt-rate, early, ornamental, flowering-ſhrub, which is exceedingly beautiful for the front of the principal ſhrubbery clumps.

The Peach and Nectarine are valuable principally as fruit trees, and being of the capital and more tender kinds, require the indulgence of the beſt ſouth walls, and thoſe of ſouth-eaſt and weſterly aſpects, planted at fifteen or eighteen feet diſtance, and their branches to be arranged cloſe to the walls in the moſt regular order, to have all poſſible advantage of the ſun to facilitate the ſetting of the tender young fruit, and forward their growth and ripening, which, in England, will not be effected in ſtandards, in the open ground.

For ornamental purpoſes, you may employ both the Almond and Peach kinds, ſuch as the Common Almond, in all its varieties; and the two varieties of Dwarf Almond, together with the Double-flowered and Dwarf Peach; all of which form elegant furniture for the ſhrubbery, in their vaſt profuſion of early bloſſom, being trained for this purpoſe, the tree kinds, in full and half ſtandards, or the dwarf kinds, as low ſhrubs, diſpoſed in the moſt conſpicuous compartments, in aſſemblage with other flowering trees and ſhrubs of the deciduous collection.

Culture of the Almond.

The Common Almond is eaſily raiſed from the ſtones of the fruit, when deſigned for the ſhrubbery plantations; but, if you wiſh to continue the improved ſorts, and ſuch as are deſirable particularly for their fruit, budding them is more eligible; for the ſeedling plants vary to different ſorts, and are longer before they bear.

To raiſe them from the ſtones, let them be ſown either about October or November, or in February, in drills, in light earth, two inches deep; and the ſeedling plants, at a year

a year or two old, planted out in nurſery rows, to be trained with upright ſingle ſtems, three or four feet for half, and five, ſix, or ſeven, for full ſtandards: then either bud them at theſe heights with buds of the approved varieties; or, if intended to continue their own heads, it is proper juſt to top them with the knife at the height you would have them branch out, to promote a more regular ſpread of branches to form a full head: and when they have effected this, you may plant them out as ſtandards, finally to remain, keeping them to clean ſingle ſtems. Permit the head to expand its branches regularly around, pruning occaſionally any caſual, rampant ſhoots, to preſerve a little regularity.

However, in order to continue the deſirable improved varieties with certainty, and have them ſooner arrive to a flowering and a plentiful bearing ſtate, budding is the moſt adviſeable mode of propagation, which you may perform either upon Plum, Almond, or Peach ſtocks, raiſed from the ſtones of the fruit, as directed for the ſeedling Almonds, and trained with ſtems to a proper height for half and full ſtandards; performing the budding them in July with buds of the deſirable varieties, inſerting them into the ſide of the ſtock, at three, four, or five feet height for half, and at ſix or ſeven for full ſtandards: or you may bud them in low ſtocks, within half a foot of the bottom, in order for the firſt ſhoot to be run up for a ſtem to the proper height; obſerving, in either caſe, to put but one bud in each ſtock, the head of which remaining till the following ſpring, cut it down to the bud, which will then puſh out, and effect a ſtrong ſhoot by the end of ſummer; which, in thoſe budded on tall ſtems, muſt, either in June the ſame year, or in the ſpring following, be pruned to five or ſix eyes, to gain lateral ſhoots from the remaining lower eyes, to provide a proper baſis to form a full head; and they will bloſſom and bear fruit in two or three years.—But if budded on low ſtocks, near the ground, you muſt run up the main ſhoots to a proper height for a ſtem; then top it at the part where you would have it form branches.

If any are deſigned for dwarfs for eſpaliers or walls, bud them near the ground, and let the firſt ſhoot from the bud be headed down, as above adviſed, to force out collateral ſhoots below, to give the head its firſt proper formation

ſion as a wall and eſpalier tree, for which you ſhould train them in the fan manner equally to the right and left, increaſing the number of branches annually; and retain every year a ſupply of young ſhoots for bearers, cutting out part of the old in winter, to make room to train them as we ſhall direct for the Peaches and Nectarines, arranging the ſhoots always at full length all ſummer; but in winter, thoſe ſelected for bearers may generally be pruned to about two thirds or three-fourths of the natural length, not, however, below the bloſſom buds.

When deſigned alſo as fruit trees, it is adviſeable to keep the head moderately thin of branches, by pruning out any ſuperabundancy in winter, and you will always have larger and earlier Almonds in proportion.

The *Dwarf Almond* propagates abundantly by its plentiful ſuckers ariſing every year from the root, which may be tranſplanted with root fibres to their bottom, any time from November till March; alſo by layers of the young branches; and likewiſe by budding the deſireable varieties upon Plum, Almond, or Peach ſtocks, either low, to form dwarfs, or in three, four, five, or ſix feet ſtems, for ſtandards.

The Culture of the Peach and Nectarine.

The Peach and Nectarine are propagated by budding them upon Plum ſtocks, or occaſionally on Almonds and Peaches, but principally Plums, as the moſt hardy, durable, and proſperous ſtock; raiſing the ſtocks from the ſtones of the fruit ſown in drills, two inches deep, in autumn, and planted out at a year old in nurſery rows; or the ſtocks may alſo be raiſed from ſuckers ariſing from Plum-tree roots: The Muſcle Plum ſtock in particular is the favourite, as the moſt ſucceſsful for thoſe trees. When the ſtocks are from two to three or four feet high, they are proper for budding low, to form dwarf or common wall trees; but for full and half ſtandards, muſt be from five or ſix, to ſeven feet high.

The budding muſt be performed in July and Auguſt; and thoſe deſigned for common dwarf wall trees, muſt be budded within ſix inches of the ground, in order to have branches proceeding immediately from the bottom, ſo as to cover the wall with branches quite from the ground upward: but it is alſo proper to have both half

and

and full ſtandard wall trees for high walls, to plant between the dwarfs, or main reſidents, to cover the upper part, whilſt the dwarf trees advance below: ſo that, for ſuch kinds, the budding muſt be effected in tall ſtocks, at three or four feet height for half, and five or ſix for full ſtandards; or low in the ſtock, and the firſt ſhoot run up for a ſtem.

Let one bud be inſerted into the ſide of each ſtock: the head of which remaining entire for the preſent, the bud will lie dormant till next ſpring; at which time, juſt before the bud begins to ſhoot, cut down the head of the ſtock a little above it: the bud will ſoon after puſh and advance two or three feet in length, the ſame year. In autumn following, they may either be planted into the garden, to remain, or planted againſt any fence in the nurſery for training a year or two, or more, to a bearing ſtate, forming what the Nurſerymen call Trained Trees; then tranſplanted finally into the garden, being placed againſt the beſt ſoutherly walls, at fifteen or eighteen feet diſtance: but obſerve, that, as the firſt ſhoot generally runs up like a ſtem, naked below, it muſt, at a year old, in ſpring, after it is produced from the bud, be headed down to five or ſix eyes, to force out lateral ſhoots from the lower eyes, the ſame year, to give the head its firſt proper form, the ſhoots being arranged cloſe to the wall, equally to the right and left, in a regular manner: Or, to form a full head as expeditiouſly as poſſible, you may pinch or prune ſome or all of the new-acquired ſhoots the ſame ſummer, early in June, to five or ſix eyes, and each ſhoot will furniſh you as many new ones the ſame ſeaſon; of which rub off any fore-rights, and train in all the others at full length, to chuſe out of in the winter-pruning. But obſerve, if the pinching the ſummer's ſhoots was not practiſed as above, they muſt be pruned ſhort in the ſpring following, to about ſix or eight inches, to obtain a ſufficient ſupply of lower branches at firſt ſetting off, to form a full head quite from the bottom; arranging the branches horizontally, at five or ſix inches diſtance, at full length, all ſummer, except pinching occaſional ſhoots in May, or June, in vacancies, to gain a ſupply of wood the ſame year. But in the winter-pruning, the ſhoots muſt generally

rally be ſhortened, more or leſs, according to their ſtrength, as explained hereafter.

As to the general culture of theſe trees, in their mature growth, or full-trained ſtate, obſerve, that as they bear moſtly only on the ſhoots of a year old, a full ſupply thereof muſt be every where retained, and part of the old wood pruned out in proportion; and they will require to be regularly pruned twice every year, in ſummer and in winter.

Begin the ſummer-pruning in May, or June, and remove all ill-placed and bad growths of the year, which, if attended to early, before the ſhoots become long and woody, may be effected by rubbing them off with the thumb; but otherwiſe, you muſt uſe the knife, taking off all fore-right ſhoots iſſuing from the front of the branches, and any very rank or luxuriant growths, quite cloſe; carefully ſelecting a large ſupply of all the regular ſide-ſhoots, as ſucceſſion-bearers, for next ſummer. At the ſame time, diſplace all the evidently ſuperfluous, or too abundant ones, leaving, however, plentifully of the proper ſhoots to chuſe out of next winter-pruning, training them now cloſe and regular to the wall, at full length, all ſummer, except in vacancies to pinch any ſhoot where wood is wanted.

In winter-pruning, from November to March, un-nail moſt of the branches and ſhoots; then ſelect a proper ſupply of the laſt ſummer's ſhoots for the following year's bearers, chuſing the middling ſtrong, beſt-placed ones, to arrange at about five or ſix inches diſtance, cutting out the ſuperabundancy cloſe to the mother branches, together with part of the old bearers, down to the firſt proper ſhoot they ſupport, or ſome quite out, as it ſhall ſeem neceſſary; alſo any old, naked branches, advanced a great length without furniſhing proper bearing wood, cutting them down either to the bottom, or to any eligible young branch or ſhoot, ſupported on their lower parts; hereby making eligible room for training the requiſite ſucceſſion of new bearers, which are previouſly to be ſhortened, each according to its ſtrength, to promote their producing more effectually a ſupply of future ſhoots, next ſummer, from their lower parts; which otherwiſe would be apt to riſe moſtly above, and leave the bottom naked. There-

fore, prune each to about two thirds, or a little more or leſs, of its natural length, not, however, cut below the bloſſom or fruit buds; and generally cut either to a ſhoot bud diſtinguiſhed from the bloſſom buds, by being long and thin, and the others round and ſwelling: or you may prune to a twin bloſſom, which generally furniſhes a leading ſhoot from between, it being eligible that each bearer have a leading young ſhoot produced in ſummer, to draw nouriſhment to the fruit.

As ſoon as pruned, let the general mother branches, and ſupply of new bearers, be all regularly nailed to the wall, horizontally, about five or ſix inches aſunder.

In unfavourable ſprings, you ſhould, when the trees are in bloſſom, defend them on nights, in froſty weather, either with large garden mats, or with cuttings of the branches of ever-greens, furniſhed with leaves, ſtitching them between the branches, ſo as to afford ſome defence to the bloſſoms and infant fruit; taking down the mats every fine day, but permitting the cuttings to remain till the fruit is ſet, and out of danger.

ANDROMEDA, *(Andromeda.)* Of the claſs and order *Decandria monogynia.*

It conſiſts principally of buſhy ſhrub kinds, for variety and obſervation, ſome being ever-green, and ſome deciduous; garniſhed with oval, ſpear-ſhaped, and oblong leaves, and ſpikes of ſmall bell-ſhaped flowers, compoſed of five-parted cups, a corolla of one bell-ſhaped, five-parted, reflexed petal, ten ſtamina with two-horned anthera, a roundiſh germen, long ſtyle, with an obtuſe ſtigma, ſucceeded by pentangular, quinquelocular capſules, having many round ſeeds.

The ſpecies are,

1. ANDROMEDA *arborea.* Tree *Andromeda* of Carolina. *(Oval, oblong, entire leaves.)*

2. ANDROMEDA *Polifolia, (Polifolia)* Mountain Poly-leaved *Andromeda. (Spear-ſhaped, alternate leaves.)*

3 ANDROMEDA *paniculata.* Paniculated Virginia *Andromeda. (Oblong, crenated, alternate leaves.)*

4. ANDROMEDA *racemoſa.* Racemoſe-flowered Penſylvanian *Andromeda. (Oblong, ſerrated, alternate leaves.)*

5. ANDROMEDA *mariana.* Maryland *Andromeda. (Oval, entire, alternate leaves.)*

6. AN-

6. ANDROMEDA *calyculata.* Calyculated, or Double-cupp'd Virginia *Andromeda.* *(Lanceolate, obtuſe, punctured, alternate leaves.)*

7. ANDROMEDA *myrtifolia.* Myrtle-leaved *Andromeda.*

8. ANDROMEDA *daboccia.* Cantabrian *Andromeda.*

9. ANDROMEDA *ferruginea.* Ferrugineous, or Iron-coloured *Andromeda.*

10. ANDROMEDA *lucida.* Lucid, or Shining-leaved *Andromeda.*

11. ANDROMEDA *axillaria.* Axillary flowering *Andromeda.*

12. ANDROMEDA *piluliſera.* Piluliferous *Andromeda.*

13. ANDROMEDA *globuliſera.* Globular *Andromeda.*

Theſe ſhrubs are mo tly of buſhy growth. The arboraceous ſort grow ſix or eight feet high; the others conſiderably lower, all of them having ſmall leaves, and ſmall greeniſh flowers in ſpikes; and are proper furniture to join in aſſemblage with other hardy ſhrubs, to diverſify the ſhrubbery plantation.

Propagate them both by ſeed ſown in the ſpring, in a bed or border half an inch deep; and by ſuckers from the root, and layers of the young lower branches, which will root in one year, fit for tranſplantation into the nurſery, to obtain two or three years growth, or till of a proper ſize for the ſhrubbery.

ANNONA, PAPAW TREE. Of the claſs and order *Polyandria polygynia.*

It compriſes two curious American, deciduous, ornamental trees, of moderate growth, adorned with large ſpear-ſhaped leaves, and bunches of large, dark-coloured flowers, having five-leaved cups, ſix large petals, numerous ſtamina, or anthera, and many ſtigmas, ſucceeded by large, oval, ſoft, yellow fruit, with many oval ſeeds.

There are but two hardy ſpecies, viz.

1. ANNONA *triloba.* Trifid, or Three-fruited American *Annona*, or Common Papaw Tree. *(Spear-ſhaped leaves.)*

2. ANNONA *glabra.* Smooth-fruited Carolina *Annona.* *(Oval ſpear-ſhaped leaves.)*

They are elegant furniture to join in the deciduous

collection, for adorning the ſhrubbery, and other ornamental departments of the pleaſure ground.

Propagate them by ſeeds ſown in ſpring, in a bed or border of light earth, or in large pots, to have ſhelter of a frame in winter. Likewiſe, pot ſome of the young plants to have protection from froſts, the firſt two years; then turn them out into the full ground.

ARALIA, BERRY-BEARING ANGELICA TREE. Of the claſs and order *Pentandria pentagynia.*

It is of the large, deciduous, ſhrub kind, for the ſhrubbery; ornamented with large, ſingular, compound, and binate and ternate leaves, and large umbellate bunches of ſmall, greeniſh flowers; having ſmall involucrums and cups, five ſmall petals, five filaments, and five ſtyles, ſucceeded by roundiſh berries with five ſeeds.

The ſpecies are,

1. ARALIA *ſpinoſa.* Thorny *Aralia*, or Common Angelica Tree. *(Having a tree-like, leafy, prickly ſtem, and compound leaves.)*

2. ARALIA *nudicaulis.* Naked-ſtalked ſmooth Aralia. *(Having a naked ſtem, and binate and ternate leaves.)*

They are North American ſhrubs, cultivated here for their ſingularity, and to diverſify our ſhrubberies, in concert with others of the deciduous tribe.

Both the ſpecies are raiſed from ſeed, ſown in the ſpring ſeaſon, either in a warm border, or in pots, to be forwarded in a hot-bed, giving the young plants protection the firſt winter, &c. from ſevere froſt; then planted out in ſpring or autumn following, into the moſt conſpicuous part of the ſhrubbery, &c. there finally to remain.

ARBUTUS *(Arbutus)* STRAWBERRY TREE. Of the claſs and order *Decandria monogynia.*

This genus, *Arbutus*, comprehends moſt elegant evergreen tree and ſhrub kinds, for ornament and variety; adorned with beautiful oblong and oval leaves, the year round, and pendulous cluſters of ſmall, white, pitcher-ſhaped flowers; having five-parted cups, a monopetalous, pitcher-ſhaped corolla, ten ſtamina with bifid anthera, a globular germen ſupporting one ſtyle and obtuſe ſtigma, ſucceeded by bunches of large ſtrawberry-like red berries, in autumn, (not edible) containing many ſmall ſeeds.

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The ſpecies are,

1. ARBUTUS *Unedo*, *(Unedo)* or Common *Arbutus*, or Strawberry Tree. *(Having a tree-like ſtem, and oval, ſmooth, ſawed leaves.)*

Varieties.

Common ſingle flowered Arbutus	*Waved-leavea*
	Oval-berried
Double flowered Arbutus	*Round-berried*
Scarlet flowered	*Yellow-berried.*

2. ARBUTUS *Andrachna*, *(Andrachna)* or Eaſtern Broad-leaved *Arbutus*. *(A tree ſtem, and large oval, ſmooth, entire leaves.)*

3. ARBUTUS *Uva-Urſi*, *(Uva-Urſi)* Bearberry, or Dwarf *Arbutus*. *(Trailing ſtems, and entire leaves.)*

4. ARBUTUS *alpina*, Alpine or Trailing *Arbutus*. *(Trailing ſtems, and oval, rough, ſerrated leaves.)*

The firſt two ſorts are of the moderate tree kind, and ſome of the moſt beautiful ever-greens in nature, as well as ſingularly ornamental in their numerous cluſters of flowers, and fine ſtrawberry-like red fruit, in autumn; and are moſt deſirable ornaments for the ſhrubbery.

But the other two ſorts are low, procumbent ſhrubs, ſerving to increaſe the ſhrubbery collection, and effect variety.

Propagate the two tree kinds by the ſeed of the berries, ſown in autumn, or ſpring, in a bed of light earth, half an inch deep; or ſome in pots, plunged in a hot-bed, in March; and the young plants potted off ſingly, to have ſhelter from froſt, the firſt two or three winters: then plant them out to adorn the principal ſhrubbery. You may plant others as detached ſtandards on graſs lawns, or any open ſpaces of graſs in the pleaſure ground; generally training them to ſingle ſtems, from half a yard, to three or four feet high, or more, and permitting them to branch out freely above, and form full heads.

You may likewiſe propagate both the tree kinds by layers: alſo, by cuttings planted in pots, and plunged in a hot-bed, in the ſpring; and likewiſe by budding any of the deſirable varieties upon ſeedling ſtocks of the common *Arbutus*.

The two dwarf ſorts may alſo be raiſed from ſeed; and likewiſe by layers and cuttings of the ſmall branches.

BIB. CANT. ACAD.

ARISTOLOCHIA, Birthwort. Of the claſs and order *Gynandria hexandria.*

Is a low, ſhrubby plant, with ſpear-ſhaped, cordate leaves, and ſingly-placed flowers; having a monopetalous irregular corolla, ſix anthera under the ſtigma, and oblong ſeed capſules.

Aristolochia *arboreſcens.* Tree Birthwort.

Place it in a ſheltered part of the ſhrubbery, as being a little tender; and you may propagate it in the ſpring, by ſeed ſown in light earth, half an inch deep; and ſet out the plants, at a year or two old, in nurſery rows, in a warm ſituation, till fit for the ſhrubbery.

ARTEMISIA, Wormwood, &c. Of the claſs and order *Syngeneſia Polygamia ſuperflua.*

The hardy Artemiſias conſiſt of a talliſh ever-green, and a lower deciduous ſhrub, garniſhed with multiplied, finely-divided leaves, and the branches terminated by ſpikes, and heads of numerous, ſmall, greeniſh, compound flowers; having a ſcaly general cup, incloſing many ſmall, tubular, hermaphrodite and female florets, with five ſtamina and one ſtyle, ſucceeded by a ſingle naked ſeed in each floret.

The ſpecies are,

1. Artemisia *arboreſcens, (Abſinthium)* or Tree Wormwood. *(A ſhrubby ſtem, and compound multifid leaves.)*

1. Artemisia *Abrotanum, (Abrotanum)* or Southernwood. *(Under-ſhrubby, erect ſtems, and finely-divided, branching leaves.)*

Varieties.

Tall Southernwood.

Dwarf Southernwood.

Broad-leaved Southernwood.

Narrow-leaved Southernwood.

They have merit for diverſifying the ſhrubbery clumps, &c. and to adorn flower borders; the firſt, as an ever-green, of four or five feet growth; the other, as a deciduous under-ſhrub, noted for its fragrant ſcent. The ever-green kind being ſomewhat tender, muſt have a defended, warm ſituation; but the Southernwood will proſper anywhere, in any ſoil and ſituation: they ſhould generally be trained with ſingle ſtems, and buſhy heads; and, as the Southernwood particularly throws out numerous ſuckers, theſe

theſe ſhould be occaſionally cleared off in winter or ſpring; and, if wanted, each will make a good plant.

Vaſt numbers of the Southernwood plant are raiſed about London, for the markets, trained with ſhort, ſingle ſtems, and round buſhy heads, a foot, or half a yard high.

Propagate the *Tree Wormwood*, either by cuttings of the young ſhoots, in April, May, or June, in a ſhady border; or by layers of the lower branches.

And the *Southernwood* may be raiſed in abundance, by cuttings and ſlips of the young ſhoots, in the ſpring, ſix or eight inches, and planted in a ſhady border, or any beds of good earth, in rows, half a foot or a foot aſunder; alſo, by ſlipping the off-ſuckers from the root, or taking up the large, increaſed plants: ſlip, or divide them into as many ſlips as are furniſhed with roots; then bed them out in rows, a foot apart: but when advanced in growth, let them be tranſplanted at wider diſtances, and into the ſhrubbery, &c.

ATRIPLEX, *(Orach)* SEA PURSLANE TREE. Of the claſs and order *Polygamia monoecia.*

It conſiſts of ſhrubby evergreens, ornamented with ſilvery, ſimple leaves, and hermaphrodite and female flowers, having five, and two-leaved cups, no corolla, five ſtamina, a two-parted ſtyle, and one orbicular ſeed, reſting in the calyx.

The ſpecies are,

1. ATRIPLEX *Halimus, (Halimus)* or Common Sea Purſlane Shrub, *with deltoid leaves.*

2. ATRIPLEX *Portulocoides, (Portulocoides)* or Oval-leaved Sea Purſlane Shrub.

They are ſea-ſide plants, and introduced into the ſhrubbery collection, to increaſe the variety with their ſilvery leaves, the year round; and will effect a very agreeable diverſity, when judiciouſly arranged in aſſemblage.

Propagate them by cuttings, in ſpring and ſummer, planted in a ſhady border; and they will be well rooted, and have formed ſhoots at top, by the following autumn.

AZALIA, AMERICAN HONEY-SUCKLE. Of the claſs and order *Pentandria monogynia.*

They are deciduous flowering-ſhrubs, decorated with oval and oblong leaves, and cluſters of long, tubular, ornamental,

namental, fragrant flowers; having five-parted cups, a funnel-ſhaped, long, tubular corolla, divided in five parts, five ſtamina with ſingle anthera, round germen, and one ſtyle, ſucceeded by quinquelocular capſules, with many ſeeds.

The ſpecies are,

1. AZALEA *viſcoſa*, Viſcous-flowered White Virginia *Azalea. (Leaves with rough margins.)*

2. AZALEA *nudiflora*, Naked-flowered Virginia *Azalea. (Oval leaves.)*

3. AZALEA *procumbens*, Procumbent Thyme-leaved Alpine *Azalea. (Procumbent, or trailing, diffuſed branches.)*

They are American ſhrubs, grow with ſeveral ſtems, from three or four, to ſix or eight feet high, flowering very ornamentally in July; and are very eligible for the pleaſure ground and ſhrubbery compartments.

Propagate them by ſuckers from the root, and layers of the young ſhoots, in autumn and ſpring.

B.

BACCHARIS, PLOUGHMAN'S SPIKENARD. Of the claſs and order *Syngeneſia polygamia ſuperflua.*

It furniſhes a hardy, ever-green ſhrub, adorned with oval leaves, and compound, ſmall, white flowers; the general cup containing many ſmall, hermaphrodite, and female florets, with five ſtamina, and one ſtyle, ſucceeded each by one ſeed.

BACCHARIS *halimifolia*, Halimus-leaved *Baccharis*, or Virginia Groundſel Tree.

It is proper for the principal ſhrubberies, being allowed a conſpicuous place towards the front; and may be propagated by layers and cuttings, in ſpring, and the beginning of ſummer, and will be rooted by autumn.

BERBERIS, BERBERRY TREE. Of the claſs and order *Hexandria monogynia.*

It compriſes deciduous tree and ſhrub kinds, of ſix or eight feet ſtature, defended with thorns, and ornamented with ſmall oval leaves, and pendulous cluſters of ſmall yellow flowers, having ſix-leaved cups, ſix ſmall oval

oval petals, ſix ſtamina, and one ſtyle, ſucceeded by cluſters of ſmall, oblong, red berries, ripe in September and October, both appearing ornamental when growing, and of great repute for pickling, to uſe in culinary purpoſes.

The ſpecies are,

1. BERBERIS *vulgaris*, Common Berberry Tree. *(Oval leaves, and with flowers in cluſters.)*

Common Red-fruited.

Red-fruited, without ſtones.

White fruited.

Black-fruited.

2. BERBERIS *canadenſis*, Canada Broad-leaved Berberry.

The Berberry is valuable both as a fruit tree, and for ornamental plantations. The bunches of flowers and fruit cauſe a fine variety, particularly the red-berried kinds; of which the bunches of berries are alſo in much eſtimation as a choice pickle, of an agreeable, tart reliſh, and for garniſh to diſhes, when ſerved up to table; ſo that their ſpecies demand admittance both in the garden and orchard, in the fruit-tree collection, and in the ſhrubbery; trained as full and half ſtandards, with ſingle, clean ſtems, from a yard, to five or ſix feet high, and permitted to branch out at top, all around, and form full and regular heads.

Propagate them by ſeed ſuckers, and layers, as below.

By either of theſe methods they may be raiſed plenteouſly, but moſt abundantly by ſeed; though the ſuckers and layers are the moſt certain to continue any particular variety. Sow the ſeed (berries) in Autumn, when ripe, an inch deep; and the young plants, when a year old, put out in nurſery rows. Suckers from the roots of old trees may be planted off in autumn, winter, or ſpring, in the nurſery; and layers of the young ſhoots will root freely, fit to plant off in one year. Obſerve to train the whole with ſingle ſtems; and when from three or four, to ſix feet high, plant them out finally.

All the culture neceſſary, is to clear off all ſuckers from the root, and collaterals from the ſtem; together with any rude, or very rambling and irregular growths of the head.

The

This tree is alſo ſometimes employed to form garden hedges, both by way of ornament, and for external fences.

BETULA, Birch Tree and Alder. Of the claſs and order *Monoecia tetrandria.*

The *Betula* furniſhes a valuable collection of deciduous foreſt trees for timber, and other hardy plantations; obtaining from twenty or thirty, to forty or fifty feet height, or more; garniſhed with moderate, oval, oblong, and roundiſh, ſimple leaves, and male and female flowers, ſeparate, in cylindric amentums; compoſed of ſcaly calyxes, ſmall monopetalous, four parted florets, but inviſible in the females; four minute ſtamina, and two briſtly ſtyles, ſucceeded by ſingle ſeeds.

The ſpecies are,

1. Betula *alba*, Common White Birch Tree. *(Oval, acuminate ſerrated leaves.)*

2. Betula *nigra*, Black Virginia Birch Tree. *(Rhomboid-oval, doubly-ſawed leaves.)*

3. Betula *lenta*, Limber-twigged *Betula*, or Poplar-leaved Virginia Birch Tree. *(Oblong, heart-ſhaped, ſawed leaves.)*

4. Betula *canadenſis*, Canada Birch Tree. *(Oval-iſh, ſawed leaves.)*

5. Betula *nana*, Dwarf Alpine Birch. *(Orbiculate, crenated leaves.)*

6. Betula *Alnus*, *(Alnus)* or Alder Tree. *(Oval-roundiſh leaves.)*

——————— *Glutinoſa*, Glutinous-leaved Alder.

——————— *Incana*, Hoary-leaved Alder.

Of theſe ſpecies, the Common Birch, and Alder-tree, grow abundantly in England, and moſt parts of Europe, &c. in moiſt, ſwampy ſoils, particularly the Alder. All the others are natives of diſtant countries, but are all cultivated in many of our Engliſh tree-plantations, either for uſe or variety.

All the tree kind are proper to join in the deciduous plantations, both as timber trees, and for coppices of under-wood, as well as to arrange for variety in any large ornamental collections, in capacious pleaſure grounds, parks, out grounds, &c. and are all hardy enough to proſper in any common ſoil and ſituation. The Alder particularly, an aquatic, may be cultivated to much advan-

advantage in all marſhy ſituations, or by the ſides of rivers, brooks, and any watery places, both as ſtandards, and to cut for poles; as alſo to form hedges in any boggy ground. The Common Birch alſo will proſper both in any ſwampy places, or in high or low, or in dry ſituations: no place comes amiſs to theſe hardy trees. But above all, the cultivation of the Alder ſhould not be omitted in all waſte, watery grounds, in which they will grow amazingly ſwift, become large handſome trees in a few years, and turn out to conſiderable profit, both to cut every ſix or eight years for poles, and to grow up for ſtandards. It will alſo make expeditious hedge fences to divide any boggy watery premiſes.

The Dwarf Birch, being of humble growth, is eſteemed principally to diverſify the ſhrubbery in the deciduous collection.

They are all propagated by ſeed, and occaſionally by layers and cuttings. Sow the ſeed either in October or November, or in the Spring, in four-feet wide beds of light earth, half an inch deep; the young plants of which plant out at a year old, in nurſery lines. The propagation by layers, is by having ſome young trees cut down near the ground, for ſtools, to furniſh abundance of ſhoots annually, from the bottom, convenient for laying; which being laid into the earth in autumn, winter, or ſpring, will root in one year, fit to plant off in the nurſery. And cuttings of the Alder grow abundantly free, both of the young ſhoots, and in large truncheons, or poles, from two or three feet, to two yards long, planted, the ſmaller ones in the nurſery, the others at once where they are to remain. Obſerve in general, of all the ſorts, as to the trees raiſed in the nurſery, to run them up with clean, ſingle ſtems, ſix feet high, or more, for tranſplantation. See PLANTATIONS and PLANTING.

The Birches, &c. may alſo be propagated by ſuckers ariſing from the root.

BIGNONIA, TRUMPET FLOWER. Of the claſs and order *Didynamia angioſpermia*.

It compriſes a beautiful upright tree, and climbing ſhrub kinds for ornament; the firſt being a moſt elegant deciduous tree, adorned with luxuriant, beautiful leaves; and the others, deciduous, and ever-green, ſhrubby climbers,

climbers, decorated with pinnated, ſpear-ſhaped, and oval leaves, and all of them with cluſters of trumpet-ſhaped, very ornamental flowers; having one-leaved, five-parted cups, a long trumpet ſhaped, five-parted corolla, two ſhort and two long ſtamina, and one ſtyle, ſucceeded by a bivalvous pod with many ſeeds.

Their ſpecies are,

1. BIGNONIA *Catalpa*, *(Catalpa)* or Tree *Bignonia* of Carolina. *(Having very large, heart-ſhaped leaves.)*

2. BIGNONIA *radicans*, Radicant or Climbing Aſh-leaved Scarlet Trumpet Flower *(Having pinnated, or winged leaves.)*

3. BIGNONIA *ſempervirens*, Ever-green Climbing Virginia *Bignonia*. *(Having ſpear-ſhaped leaves.)*

4. BIGNONIA *unguis cati*, Climbing Four-leaved *Bignonia* of Barbadoes.

They are American plants, long ſince introduced into our gardens. The firſt two ſorts are very hardy; but the others, being ſomewhat tender, ſhould have a warm, ſunny ſituation.

They are all choice furniture for adorning the ſhrubbery; the firſt, as a fine, ornamental, upright ſtandard tree, with noble foliage; the others as climbers againſt fences, or other ſupport, in which they will climb many feet high by their tendrils, or claſpers; the firſt of which, being radicant, emits roots in the walls, &c. as it mounts, and thereby aſcends to a conſiderable height.

Propagate them by ſeeds, cuttings, and layers. Sow the ſeeds in ſpring, either in a warm border, or in pots placed on a hot-bed to forward them. Cuttings of the young ſhoots of the *Catalpa*, aſſiſted by a hot bed, root freely; but both cuttings and layers of the others will take root in the full ground.

BUPLEURUM, ÆTHIOPIAN HARTWORT, or HARE'S EAR. Of the claſs and order *Pentandria digynia*.

It is a ſhrubby ever-green, of very ornamental growth, with oval, umbelliferous, yellow flowers; having the main umbel formed of ten ſmaller, compoſed of ſmall florets of five petals, five ſtamina, and two ſtyles, ſucceeded by bipartite fruit, with two ſeeds.

BUPLEURUM *fruticoſum*, Shrubby Æthiopian Hartwort.

It

It may be propagated by ſeeds, and cuttings; ſowing the ſeeds in the ſpring, in a warm border, or in pots, to be forwarded in a hot-bed; and cuttings of the young ſhoots, aſſiſted by a hotbed in the ſpring, or planted in the full ground in May or June, will grow, and form proper plants by the autumn following.

BUXUS, Box TREE. Of the claſs and order *Monoecia tetrandria*.

The *Buxus* compriſes low, ever-green tree and ſhrub kinds, for the pleaſure-ground; and for edgings to beds and borders; adorned with ſmall, oval, ſtiff leaves, and very ſmall male and female greeniſh flowers, having three or four-leaved calyxes, a corolla of two and three petals, four ſtamina, and one ſtyle, ſucceeded by trilocular capſules, with ſmall oblong ſeeds.

The ſpecies and varieties are,

1. BUXUS *arboreſcens*, or Tree Box. *(Oval leaves.)*

Broad-leaved Tree Box
Narrow-leaved Tree Box
Silver-ſtriped-leaved
Gold-ſtriped-leaved
Gold-tipped-leaved
Gold-edged-leaved
Silver-tipped-leaved
Waved curled-ſtriped-leaved.

2. BUXUS *ſuffruticoſa*. Under-ſhrubby, or Dwarf Box. *(Very ſmall, roundiſh-oval leaves.)*

Common green Dwarf Box, for edgings, &c.
Silver-ſtriped Dwarf Box.
Myrtle-leaved Dwarf Box.

Both theſe ſpecies, and their reſpective varieties, are neat ever-greens, of buſhy growth, very cloſely garniſhed with leaves. The *Buxus Arboreſcens*, or Tree Box, grows ten or more feet high; and the other not above half a yard. Both of them are pretty ornaments for the ſhrubbery, trained with buſhy heads: the Tree Box, alſo, for ornamental hedges; and the Dwarf ſort, likewiſe, for edgings to flower-beds and borders, for which it is famous, as forming the moſt effectual and beautiful of all edgings to any garden compartments; uſeful, durable, and eaſily kept in order. But both the ſpecies of *Buxus* are alſo trained occaſionally in detached, formal figures, as pyramids, globes, hemiſpheres, &c. and the Tree Box is of great value to cultivate for its hard, ponderous wood, for making many curious implements in various trades.

Propagate the Tree Box by layers, and cuttings of the young branches and ſhoots, in autumn or ſpring, planting the cuttings in a ſhady border: it may alſo be raiſed from ſeed, ſown in any light earth, half an inch deep.

The *Buxus ſuffruticoſa* is generally increaſed by off-ſet rooted ſuckers, ſlipped off to the bottom with good roots; likewiſe, by ſlips and cuttings of the branches and ſhoots, planted thickly in any ſhady border. But, as it emits numerous rooted off-ſets from the bottom, theſe may with facility be ſlipped off with abundance of roots, any time from September or October, till March, April, or May; either by ſlipping the old plants as they ſtand, or taking them wholly up, and dividing them to the very bottom, roots and all; then planting them either to train as detached dwarf ſhrubs, or at once for edgings, as may be wanted.

To plant for Box-edgings, chuſe the Dwarf Box; make up the edge of the border even by line; then with a ſpade cut a narrow trench, upright next the line, ſix inches deep. Divide the Box into ſmall, rooted ſlips; trim the long roots, and ſtraggling tops even, and plant them againſt the upright ſide of the trench, cloſe together, at once to form a full edging; trimming in the earth within an inch of the top, and treading the whole evenly down. The future culture is, to clip them neatly every ſummer, to two inches broad, and three or four high.

CALYCANTHUS, Carolina Allspice. Of the claſs and order *Icoſandria polygynia*.

It is a deciduous flowering-ſhrub, with large oval leaves, and purpliſh flowers; having many-parted, coloured cups, no corolla, twenty ſtamina, and numerous germina and ſtigmas, ſucceeded by oval fruit with many ſeeds.

The ſpecies is,

Calycanthus *floridus*. Carolina Allſpice. *(Its bark emitting an aromatic, ſpicy fragrance.)*

Give it a warm place in the ſhrubbery, in aſſemblage towards the front, and train it as a low buſhy ſtandard.

It is propagated by layers of the young ſhoots, in the ſpring and ſummer, or by cuttings, in a ſhady border; or forwarded by a hot-bed.

CARPINUS, Hornbeam Tree. Of the claſs and order *Monoecia polyandria*.

It

It comprehends deciduous foreſt and ornamental trees, with oval and oblong ſimple leaves, and male and female flowers, growing ſeparate in ſcaly calyxes, collected diſtinctly into looſe amentums, or catkins; with no corolla in the males, but a ſix-parted one in the female amentums; in the males ten ſtamina, and the females four ſtyles: and the female amentum enlarges to a ſcaly cone, containing oval-angular nuts.

The ſpecies are,

1. CARPINUS *Betulus, (Betulus)* Common Hornbeam Tree. *(Oval, rough leaves, withering in autumn, and remaining ſo all winter on the branches.)*

Variegated-leaved Hornbeam.

Virginia Hornbeam, with longeſt leaves and cones.

Oriental, or Eaſtern Hornbeam.

2. CARPINUS *Oſtrya, (Oſtrya)* Hop Hornbeam. *(Oblong rough leaves.)* The amentums of fruit like bunches of hops.

Virginia-flowering Hop Hornbeam.

They are proper for all hardy plantations in any common ſoil; but the Common Hornbeam is in great reputation to arrange in the foreſt-tree collection, both as ſtandard timber-trees, and coppice-wood for poles and ſtems; will ſucceed any where, in barren as well as in fertile ſoils, and in any ſituations; and was formerly in great eſtimation for ornamental garden hedges. It is indeed no leſs ornamental than uſeful, being proper to arrange in tall ſtandards, about pleaſure-grounds, parks, and fields, &c. As is alſo the Hop Hornbeam, which, in aſſemblage with the other, ſhould have a place in all uſeful and ornamental plantations in extenſive grounds, as it attains a tall, cloſe, uniform growth.

Propagate them by ſeed, and layers: ſow the ſeed in October or November, an inch deep, in beds of common earth; the plants will come up in the ſpring, and be fit to plant in nurſery-rows the next year. Layers, alſo, of the lower young ſhoots, root freely in one year; and ſhould then be ſeparated from the parent tree, and planted in nurſery lines to train, together with the ſeedlings, each with a ſingle ſtem, for ſtandards.

Let thoſe intended for timber, or tall ſtandard trees,

be trained with ſingle ſtems, and their tops intire; trimming off collateral ſhoots gradually, to form a clean ſtem of ſix or ſeven feet; then let them branch out above freely all around.

But thoſe intended for underwood plantations, or hedges, ſhould be planted out at two, three, or four feet high; the hedge-plants, particularly, ſhould be ſuffered to branch out quite from the bottom.

Hedges of Hornbeam are very ornamental in ſummer; and as they retain their withered leaves all winter, they alſo afford a greater ſhelter from cutting blaſts than any other deciduous hedges.

CEANOTHUS, New Jersey Tea. Of the claſs and order *Pentandria monogynia*.

It is a low, ornamental, deciduous flowering-ſhrub, with oval leaves, and fully adorned with cluſters of white flowers, of five roundiſh petals, five ſtamina, and one ſtyle, furniſhing an obtuſe berry with three ſeeds.

The ſpecies is,

Ceanothus *Americana*. American Ceanothus, or New Jerſey Tea.

Plant it in the front of ſhrubberies, and propagate it both by layers and by ſeeds, in autumn or ſpring, in a warm border, or in pots, ſheltered from froſt, and placed in a hot-bed in ſpring, to forward them; and when the ſeedlings are a year old, bed them out in a ſheltered ſituation in the nurſery, till fit for the ſhrubbery plantations.

CELASTRUS, *(Celaſtrus)* Staff Tree. Of the claſs and order *Pentandria monogynia*.

It compriſes an upright ever-green ſhrub, and a ſhrubby climber, ornamented with oval and oblong leaves, and ſpikes and bunches of white and greeniſh five-leaved flowers, compoſed of one-leaved cups, a corolla of five oval petals, five ſtamina and one ſtyle, furniſhing trigonal, beautiful red capſules with oval ſeeds.

The ſpecies are,

1. Celastrus *bullatus*. Bullated, or Studded-fruited Upright Virginia Staff-tree, or *Celaſtrus*. *(Upright ſtems, and oval entire leaves.)*

2. Celastrus *ſcandens*. Climbing *Celaſtrus*. *(Volubilate climbing ſtems, and oblong, oval, ſerrated leaves.)*

Diſpoſe

Diſpoſe theſe ſhrubs in the principal ſhrubbery, conſpicuous to view; the firſt as an upright ever-green ſhrub; the other as a volubilate, or twining climber, allowing it ſupport; and it will exhibit its ſingular red capſules curiouſly in autumn.

Propagate them by ſeeds, and layers of the branches: ſow the ſeed in autumn, or early in ſpring, in drills; or bedded in an inch deep. Some will probably riſe the firſt year, the reſt not till the ſecond ſpring. Layers of the young ſhoots and branches in ſpring and ſummer, will be rooted by next autumn.

CELTIS, *(Lote)* or NETTLE-TREE. Of the claſs and order *Polygamia monoecia.*

This genus furniſhes large deciduous trees for foreſt and ornamental collections: they are decorated with ſpear-ſhaped, oval, and heart-ſhaped, nettle-like leaves, and ſmall greeniſh hermaphrodite and male flowers; having monophyllous cups, no corolla or petals, five filaments and two ſtyles, ſucceeded by a roundiſh berry with one nut, ripening in October (not eatable) for ſowing, to propagate the ſpecies.

The ſpecies are,

1. CELTIS *auſtralis.* South-European Black-fruited Nettle-tree. *(Oval ſpear-ſhaped leaves.)*

2. CELTIS *Occidentalis.* Occidental or Weſtern American Purple-fruited Nettle-tree. *(Oblique, oval, ſharply-ſawed leaves.)*

3. CELTIS *orientalis.* Oriental Yellow-fruited Nettle-tree. *(Oblique, heart-ſhaped, ſawed leaves.)*

Bloatched-leaved varieties of moſt of the ſorts.

They are all of the tree kind, forty or fifty feet high, in the firſt two ſorts; the other of humbler growth; and are all very elegant furniture to join in the deciduous plantations for ornament and variety, trained as full ſtandards: likewiſe, the firſt and ſecond to arrange in the foreſt-tree collections, as timber trees. They will all ſucceed in any common ſoil in open ſituations, in pleaſure-grounds, parks, and any out-grounds.

Let them be propagated by ſeed, layers, and cuttings: ſow the ſeed in autumn, or early in the ſpring, in beds of light ſoil, an inch deep, either drilled in, or broad-

caſt ſown, and covered that depth with fine earth, managing them as other hardy trees; and layers and cuttings of the young ſhoots, in autumn and ſpring, will take root, ready to plant off in the autumn or ſpring following.

CEPHALANTHUS, BUTTON-TREE. Of the claſs and order *Tetrandria monogynia.*

It is a fine deciduous, ornamental flowering-ſhrub, with oblong leaves, and numerous globular heads of ſmall yellowiſh flowers; each aggregate or head compoſed of many florets, having each a one-leaved calyx, a monopetalous funnel-ſhaped corolla, four filaments or ſtamina, and one ſtyle, ſucceeded by ſingle ſeeds, collected into globular receptacles.

The ſpecies is,

CEPHALANTHUS *occidentalis.* Occidental or American Button-Tree.

Admit it into the beſt ſhrubberies as a ſtandard ſhrub, adjoining the principal lawns and walks: and it may be propagated by ſeed ſown half an inch deep; likewiſe by layers and cuttings.

CERCIS, JUDAS-TREE. Of the claſs and order, *Decandria monogynia.*

There are two moderate-growing deciduous tree kinds for variety and ornament, adorned with roundiſh heart-ſhaped leaves, and cluſters of papilionaceous-like, purple and reddiſh flowers, having five petals, ten ſtamina and one ſtyle, becoming an oblong unilocular pod, with roundiſh ſeeds.

The ſpecies are,

1. CERCIS *Siliquaſtrum, (Siliquaſtrum)* or European Judas-Tree. *(Heart-ſhaped, orbicular ſmooth leaves.)*
Purple-flowered.
White-flowered.

2. CERCIS *canadenſis.* Canadian Judas-Tree. *(Heart-ſhaped downy leaves.)*

They grow ten or fifteen feet high; and highly demand admittance in all ornamental plantations in the deciduous collection, where they will effect a diſtinguiſhable variety, both in foliage and flowers. Train them in upright ſtandards, forming a buſhy growth.

They are propagated by ſeed, in a bed of common earth, in the ſpring, ſown half an inch deep; and when the

the plants are a year old, plant them in the nurſery, to obtain due ſize for the garden plantations.

CHIONANTHUS, SNOW-DROP-TREE, or FRINGE-TREE. Of the claſs and order, *Diandria monogynia.*

It is an elegant deciduous flowering-ſhrub, of eight or ten feet growth, with large beautiful oblong leaves, and long bunches of ſnowy-white, fringed flowers; having a funnel-ſhaped, four-parted petal, two ſtamina, one ſtyle, and an unilocular berry with one ſeed.

There is but one hardy ſpecies, viz.

CHIONANTHUS *virginica.* Virginian Snow-Drop-Tree. *(Trifid foot-ſtalk, with three flowers.)*

Admit this beautiful plant in all the principal ſhrubbery compartments conſpicuouſly, and train it with a ſingle ſtem, and full head, and it will exhibit an elegant bloom.

It may be propagated by ſeed, and layers: ſow the ſeed in ſpring, in pots of good earth, placed in the ſhade all ſummer, and defended from froſt in winter. Layers alſo of young ſhoots, ſlit-laid, will take root; though ſome, probably, will be two years before that is properly effected.

CISTUS, *(Ciſtus)* ROCK-ROSE. Of the claſs and order *Polyandria monogynia.*

It comprehends a grand collection of moſt beautiful ever-green flowering ſhrubs, for adorning the ſhrubbery; aſſuming moſtly a buſhy diffuſed growth, from two or three, to five or ſix feet height; decorated with ſpear-ſhaped, oval and oblong ſimple leaves, of various ſizes and colours, in different ſhades of green, hoary, white, &c. moſt of them exuding a gummy ſubſtance; and bearing numerous large monopetalous white and purple flowers, having five-leaved cups, a large ſpreading corolla of five broad roundiſh patent petals, numerous ſmall filaments with roundiſh anthera, and a ſingle ſtyle with an orbicular ſtigma, ſucceeded by a covered capſule with numerous ſmall ſeeds.

The ſpecies are,

1. CISTUS *albidus.* White-leaved *Ciſtus.* *(Oval, lanceolate, downy, whitiſh leaves.)*

2. CISTUS *laurifolius.* Bay-leaved *Ciſtus.* *(Oblong, oval, trinervous leaves, ſmooth above.)*

3. CISTUS

3. Cistus *incanus*. Hoary-leaved *Ciſtus*. *(Spatula-ſhaped, hoary, rough leaves.)*
Long-leaved Hoary Ciſtus.

4. Cistus *cordifolia*. Heart-leaved *Ciſtus*.

5. Cistus *populifolius*. Poplar-leaved *Ciſtus*. *(Large, heart-ſhaped, ſmooth, acuminate leaves.)*

6. Cistus *criſpus*. Criſpous or Curled waved-leaved *Ciſtus*. *(Spear-ſhaped, downy, trinervous-waved leaves.)*

7. Cistus *ſalvifolius*. Sage-leaved *Ciſtus*. *(Oval, woolly hairy leaves.)*

8. Cistus *creticus*. Cretan Rough-leaved *Ciſtus*. *(Spatulate-oval, rough leaves.)*

9. Cistus *piloſus*. Hairy-leaved *Ciſtus*. *(Oval hairy leaves.)*

10. Cistus *halimifolius*. Sea Purſlane-leaved *Ciſtus*. *(Oblong, oval, hoary-white leaves.)*
Narrow-leaved halimifolius Ciſtus.

11. Cistus *monſpelienſis*. Montpelier Gum *Ciſtus*. *(Linear, ſpear-ſhaped, hairy leaves.)*
Olive-leaved Montpelier Ciſtus.

12. Cistus *appenninus*. Appennine Mountain *Ciſtus*. *(Spear-ſhaped, hairy leaves.)*

13. Cistus *Helianthemum*, *(Helianthemum)* Dwarf Trailing *Ciſtus*. *(Oblong, revolute, ſomewhat hairy leaves.)*

14. Cistus *libanotis*. Roſemary Spaniſh *Ciſtus*. *(Narrow revolute leaves, with flowers in a corymbus.)*

15. Cistus *ladaniferus*. Ladaniferous or Gum-bearing *Ciſtus*. *(Spear-ſhaped leaves, ſmooth above.)*
Spotted-flowered Ladaniferous Ciſtus.

16. Cistus *Italicus*. Italian Hiſpid-leaved *Ciſtus*. *(Oval, oppoſite, hiſpid leaves below, ſpear-ſhaped above, and ſpreading branches.)*

They are all very ornamental ever-greens, exhibiting a vaſt variety in their different foliage, in ſhape, ſize, and colour, remaining the year round; as alſo in the great profuſion of large conſpicuous ornamental flowers, which, though generally but of one day's duration, are ſucceeded by new ones in vaſt abundance daily, for ſeveral weeks in ſummer, May, June, July, and Auguſt, in the different ſpecies.

Let

Let them therefore be diſpoſed plenteouſly in all the conſpicuous ſhrubbery plantations, towards the front of the compartments next the main walks and principal lawns.

Obſerve, it is adviſable to indulge them with a moderately dry ſoil, and ſomewhat warm ſituation, as in ſevere winters they are liable to ſuffer; for which reaſon, it is alſo eligible to keep ſome in pots, to have occaſional ſhelter of a frame, glaſs-caſe, or green-houſe, in ſevere weather. See the *Green houſe Diviſion.*

All the ſorts are propagated by ſeedlings and layers: ſow the ſeeds in March, either in a bed, or border, of light rich earth, half an inch deep; or in pots of good mold, the ſame depth, and plunged in a hot-bed, to forward them. Cuttings of the young ſhoots, in March, April, or May, &c. may be planted either in a ſhady border, or in pots, ſeveral in each, to be placed occaſionally in the ſhade in ſummer; or in ſpring, plant ſome thickly in large pots, plunged in a bark-bed, or any other hot bed, to facilitate their rooting. And layers of the lower young ſhoots, laid any time in ſpring, and the early part of ſummer, will root freely the ſame year.

It is eligible in the ſeedlings, and other young plants of the *Ciſtus's*, in their infant growth, to have ſome in pots for moving, to ſhelter from ſevere froſt, the firſt two or three winters.

CLEMATIS, *(Climber)* VIRGIN'S BOWER, and TRAVELLER'S JOY. Of the claſs and order *Polyandria polygynia.*

They are eminent ſhrubby climbers, with long trailing ſtalks, mounting, by ſupport, many feet high; garniſhed, ſome with compound pinnated, many lobed leaves; others with ternate, and ſome with ſimple leaves, and numerous blue, red, white, and other coloured ſmall four-leaved flowers, having no cups, a corolla of four ſmall petals, numerous ſtamina and ſtyles, ſucceeded by roundiſh cluſtered heads of ſeeds, terminated by the permanent ſtyles.

The ſpecies are,

1. CLEMATIS *Viticella, (Viticella)* Common Virgin's Bower. *(Compound decompound leaves, with oval entire lobes.)*

Single

Single Blue-flowered.
Purple-flowered.
Red-flowered.
Double-flowered, very ornamental.

2. CLEMATIS *Vitalba, (Vitalba)* White Wild Climber, or Traveller's Joy. *(Pinnated leaves, with heart-ſhap'd, climbing lobes.)*

This grows wild in England, &c. running over the hedges and buſhes by way ſides.

3. CLEMATIS *Viorna, (Viorna)* Carolina Purple Virgin's Bower. *(Compound-decompound leaves, with ſometimes trifid lobes.)*

4. CLEMATIS *criſpa.* Curled-flowered Carolina Climber. *(Simple and ternate leaves.)*

5. CLEMATIS *orientalis.* Oriental, or Eaſtern Virgin's Bower. *(Compound leaves, with angular wedge-ſhaped lobes.)*

6. CLEMATIS *virginiana.* Virginian Ternate-leaved Virgin's Bower. *(Trifoliate leaves, with heart-ſhaped, angulated lobes.)*

7. CLEMATIS *cirrhoſa.* Cirrhoſe European Spaniſh Climber. *(Simple oval leaves, and climbing cirrhi, or tendrils.)*

They have all long ſlender pliant ſtalks, ſhooting many feet in length in one ſeaſon, mounting upon the adjacent trees, buſhes, and hedges, flowering profuſely as they aſcend; and are peculiarly calculated to train over bowers, arbours, rural ſeats, and againſt naked walls; to run over rough hedges, ſhrubs, and buſhes; and to aſcend upon trees in the ſhrubbery, wilderneſs, wood-walks, thickets, and ſhady receſſes, &c. But the double-flowering *Clematis viticella*, or Common Virgin's Bower, claims precedence of all the others, for the beauty of its flowers; though all the other demand admittance in the general collection, as they will increaſe the variety very agreeably.

Propagate all the ſorts by layers and cuttings of the young ſhoots, in the ſpring and autumn ſeaſon; or the layers, indeed, at any time: they will all readily emit roots, and form proper rooted plants in one ſummer's growth.

CLETHRA,

CLETHRA, *(Clethra.)* Of the claſs and order *Decandria monogynia.*

It is a very ornamental, deciduous flowering ſhrub, of three, four, or five feet growth, with oblong ſimple leaves, and very beautiful ſpikes of white flowers at the ends of the branches; having a five-parted cup, five oblong petals, ten filaments, one ſtyle, and roundiſh trivalvous ſeed-capſules.

CLETHRA *alnifolia.* Alder-leaved American *Clethra.* *(Long, ſpear-ſhaped, ſawed leaves.)*

Admit this pretty flowering ſhrub in the front of the ſhrubbery, and ſome in pots to move, to adorn any compartment occaſionally; and you may propagate it by ſeed, ſuckers, and layers, in the ſpring.

CNEORUM, WIDOW-WAIL. Of the claſs and order *Triandria monogynia.*

This is a low, buſhy, ornamental, ever-green flowering-ſhrub, with oval leaves, and yellowiſh flowers, having three oblong petals, three ſtamina, one ſtyle, and a globular trilobate, three-ſeeded berry.

But one ſpecies, viz.

CNEORUM *tricoccum.* Three-ſeeded Cneorum, or Widow-Wail.

It is eligible for all ſhrubbery compartments, as a buſhy ſtandard; and is propagated by cuttings and ſlips of the young ſhoots, in ſpring, in a hot bed, or ſhady border; and by ſeed, in the common ground, ſown half an inch deep; and the young ſeedling plants, at a year or two old, muſt be planted out in nurſery rows, to attain due ſize to adorn the ſhrubbery, &c.

COLUTA, BLADDER SENNA. Claſs and order *Diadelphia decandria.*

They are deciduous flowering-tree and ſhrub kinds, of upright growth, for adorning the ſhrubbery, ornamented with winged leaves of many pairs of ovaliſh lobes, terminated by an odd one, and numerous looſe cluſters of papilionaceous yellow and red flowers; having monyphyllous bell-ſhaped, five-parted cups, a corolla, with the ſtandard, wings, and carina, varying in figure, ten diadelphous ſtamina, one ſtyle, and a large ſwolen bladder-ſhaped pod, with kidney-ſhaped ſeeds.

The

The ſpecies and varieties are,

COLUTEA *arboreſcens*. Tree Colutea, or Common Bladder Senna. *(Having obcordate-oval folioles of the leaves, and pale yellow flowers.)*

Varieties,

Pocock's Eaſtern Shrubby Colutea. *(With intire, oval lobes to the leaves, and deep yellow flowers.)*

Oriental Shrubby *Colutea*. *(With deep-red flowers.)*

They are of upright growth, the firſt obtaining ten or twelve feet ſtature; the others, five or ſix, being trained with ſingle ſtems and full heads. Plant the firſt ſort any where, the others in favorable ſituations; and they will effect a very pretty variety in their beautiful winged many-lobed leaves, numerous bunches, and ſingular bladder-like ſeed-pods, which afford abundance of ſeed for propagating their reſpective ſpecies.

They are all eaſily propagated by ſeed, and may alſo be raiſed from layers. Sow the ſeed in the ſpring, in beds of good light earth, drilled, or bedded, an inch deep: and layers of the lower young ſhoots, in the ſpring or autumn, will grow. The ſeeds will grow freely the ſame year, and the layers be rooted by next autumn. Plant both the ſeedlings and layers out in the nurſery way, in the ſpring, to obtain proper ſize for the ſhrubbery.

CORIARIA, MYRTLE-LEAVED SUMACH. Of the claſs and order, *Dioecia decandria*.

It is a low, buſhy, deciduous flowering-ſhrub, with ſmall, oblong, ſhining leaves, and ſmall ſpikes of whitiſh male and female flowers, ſeparated on different plants; having five-leaved cups, a corolla of five oval petals, ten ſtamina, one ſtyle, and an angular five-ſeeded berry.

The ſpecies is,

CORIARIA *myrtifolia*. Myrtle-leaved Sumach. *(Oval, oblong, ſmall leaves.)*

Male-flowered Coriaria, *bearing male flowers only*.

Female-flowered Coriaria.

Plant it any where in the ſhrubbery collection. You may propagate it plenteouſly by ſuckers of the root, and layers of the young wood in autumn or ſpring.

CORNUS, CORNEL-TREE, *Cornelian Cherry*, &c. Claſs and order, *Tetrandria monogynia*.

It

It furniſhes deciduous tree and ſhrub kinds for ornament and variety, and is decorated with oblong, oval, and obverſe heart-ſhaped leaves, and numerous ſmall yellowiſh and white flowers, in ſmall umbellate cluſters; each umbel of flowers contained in a four-leaved involucrum, and each floret having a four-parted cup, four oblong petals, four ſtamina, one ſtyle, and a roundiſh cherry-like red berry, having a two-kernelled nut.

The ſpecies are,

1. CORNUS *mas*. Male Cornus, or Cornelian Cherry-Tree. *(Oblong leaves, and the flower-umbels and involucrums equal; ſucceeded by cherry-like, eatable, acid fruit, proper to preſerve for tarts, &c.)*

Red-fruited Common Cornel-Tree.

White-fruited Cornel-Tree.

2. CORNUS *ſanguinea*. Bloody Twig, or Common Engliſh Dogwood. *(Oblong, pointed leaves, cymoſe, naked flower-umbels, and blood-red ſhoots.)*

Variegated-leaved.

3. CORNUS *florida*. Virginia Red Dogwood. *(Obverſe, heart-ſhaped leaves, large involucrums, and red twigs.)*

Female Narrow-leaved Virginia Dogwood.

Blue-berried American Dogwood.

White-berried Penſylvanian Dogwood.

White-leaved American Dogwood.

They all demand culture in the ſhrubbery, and all other pleaſurable plantations. The *Cornus mas* is the largeſt grower, it obtaining twenty feet height; the others five, ten, or fifteen; and being all trained with upright ſingle ſtems, and full, branchy heads, they will effect a very diſtinguiſhable variety in tree and ſhrub collections, in their different foliage, and umbels of flowers, which in the Male Cornel appear early in ſpring, in ſmall, cloſe, greeniſh-yellow umbels, at the ſides and ends of the branches; in the others in ſummer, in large white umbels, terminating the ſhoots ornamentally, ſucceeded in the whole by cluſters of red, white, and other coloured berries, exhibiting a very agreeable diverſity; as alſo the Dogwood kinds in their ſingular red ſhoots.

The Cornelian Cherry is alſo in eſtimation for its fruit

to preſerve for tarts. The trees ſhould be trained either as eſpaliers, or half and full ſtandards, and their branches permitted to extend moſtly at their natural length.

They are all propagated by ſeed, layers and cuttings. Sow the ſeed in the autumn or ſpring, an inch or two deep: the autumn ſowing generally comes up next ſpring; the other probably not till next year. Layers and cuttings performed on the young ſhoots of the year, in autumn or ſpring, will be rooted by autumn following.

CORONILLA, JOINTED-PODDED COLUTEA. Of the claſs and order *Diadelphia decandria.*

It furniſhes one hardy, deciduous, upright, flowering-ſhrub, with neat winged leaves, and papilionaceous yellow flowers in bunches; compoſed of a monophyllous bifid calyx, a corolla, with a heart-ſhaped ſtandard, oval wings, and ſhort *carina* or keel, one ſtyle, and a long, taper, jointed ſeed-pod.

The hardy ſpecies is,

CORONILLA *Emerus, (Emerus)* or Scorpion Senna. *(Pinnated leaves, with three pair of lobes and an odd one, and peduncles, generally, with three flowers.)*

Dwarf Scorpion Senna.

Plant them any where in the ſhrubbery collections, and propagate them by ſeed, in the ſpring, ſown half an inch deep: alſo by layers of the young wood.

CORYLUS, HAZEL-NUT-TREE, FILBERT, &c. Of the claſs and order, *Monoecia polyandria.*

They are deciduous nuciferous, or nut-bearing trees, conſiſting of the Common Hazel-Nut-Trees, Filbert, and ſome other eminent varieties, moſtly of the moderate tree kinds, from eight or ten, to fifteen or twenty feet high, garniſhed with large roundiſh, rough leaves, and male and female flowers, ſeparated on the ſame tree; the former collected in long, ſmall, ſcaly catkins, in winter; the latter in cloſe cluſters, early in the ſpring; each ſcale of the catkin forming a cup to the male flowers; but the females have large thick two-leaved calyxes; no *corolla:* many ſtamina in the males; in the females, an oval germen, and two ſtyles: the germen ſucceeds to an oval nut, containing a ſweet eatable kernel; each nut incloſed in its large lacerated cup, attending it to maturity, ripening in Auguſt and September.

The

The ſpecies are,

1. CORYLUS *Avellana, (Avellana)* or Common Hazel-Nut-Tree. *(Large oval, rough leaves, with oval, obtuſe ſtipula.)*

Common Hazel of the Woods, producing round nuts.
Long Wood Nut.
Large Cluſter Wood Nut.
Great Cob Nut.
Barcelona Nut.
Filbert Nut, with red kernels.
Filbert Nut, with white kernels.

Theſe are all ſuppoſed to be accidental ſeedling varieties of the Common Hazel-Tree.

2. CORYLUS *Colurna, (Colurna)* or Dwarf Byzantine Nut-Tree. *(Roundiſh, pointed leaves, having linear, acute ſtipula.)*

3. CORYLUS *cornuta.* Horned, or American Cuckold Nut.

The Common Hazel-Tree grows naturally in our woods, foreſts, and hedge-rows, in the greateſt abundance; but this, and its principal varieties, merit admittance into the garden collections, both as fruit-trees and for variety; though, more plenteouſly, the large Cluſter Nut, Cob Nut, Barcelona Nut, and Filbert; but the Filbert moſt of all, for the great excellence of its fine well-reliſhed kernel: all of which may be planted any where in a garden, orchard, ſhrubbery, hedge-rows, and any out-grounds, as fruit-trees, trained both as half and full ſtandards, with ſingle ſtems, from three or four, to five or ſix feet high, branching out at theſe heights into full heads; alſo, in rough hedges, to grow up without cutting. Plant the ſtandards fifteen or twenty feet diſtance, keep them to ſingle ſtems below, and permit them to branch out above all round. The hedge-plants ſhould be ſet two or three feet aſunder, fanned up a little on the ſides below, but ſuffered to branch out freely above; in all of which they will bear abundantly, though the detached ſtandards generally afford the largeſt and beſt-flavoured nuts, earlieſt ripe.

The Filbert is alſo ſometimes formed into eſpalier hedges in the garden, planted fifteen or eighteen feet diſtance, and their branches regularly arranged ſix inches aſunder,

without ſhortening; and they produce larger and earlier nuts.

All theſe ſorts of nuts may alſo be introduced into ornamental plantations, and on the borders of wood-walks, ſhady walks, ſhrubberies, &c. diſpoſed as ſtandards; and they will both diverſify the premiſes, and furniſh abundance of fruit.

The Common Hazel-Tree is likewiſe of eminent value as a foreſt-tree, principally however for underwood in coppices and hedge-rows, to run up to ſtems to cut for poles, &c. for numerous uſeful purpoſes; but you may likewiſe let ſome grow up for ſtandards.

They are all eaſily propagated plenteouſly by the nuts planted, and by ſuckers and layers. The nuts being preſerved in ſand till February, ſow them in drills two inches deep, for tranſplantation, when the plants are a year or two old, in nurſery-rows, a yard aſunder.—Suckers riſing plenteouſly from the root, may be taken up in autumn, winter, or ſpring, with roots, and planted either in the nurſery for training, or ſome of the largeſt at once, where they are to remain; and layers of the young lower branches, any time from October till March, will take root abundantly, and be fit for planting off in autumn following.

Obſerve, the permanency of the deſirable varieties is obtained with certainty only either by layers, or ſuckers: the ſeedling plants do not always come the ſame again: or you may graft or bud the improved kinds upon any ſort of Hazel ſtocks.

CRATÆGUS, HAWTHORN, or *Wild Service-Tree.* Of the claſs and order, *Icoſandria digynia.*

They are valuable deciduous berry-bearing tree and ſhrub kinds, for uſe and ornament, obtaining from five, ten, or twenty, to fifty feet ſtature, in different ſpecies; moſtly defended with ſtrong thorns, and garniſhed with ſimple leaves, which in ſome are trifid, ſome ſeptangular, and others large, oval, and entire, and numerous cluſters of white hermaphrodite flowers; having five-parted cups, a corolla of five roundiſh concave petals, twenty ſtamina, and two ſtyles, ſucceeded by bunches of red, two-ſeeded berries, ripe in autumn.

The

The ſpecies are,

1. CRATÆGUS *Oxyacantha, (Oxyacantha)* or Common Hawthorn, or White Thorn. *(Obtuſely tri-lobated ſawed leaves.)*

Varieties,

Common Single-bloſſom Hawthorn, with red berries, or haws. Famous for making the beſt hedges in the world for outward fences.

Double-bloſſom Hawthorn.

Scarlet-berried Hawthorn.

Yellow-berried Hawthorn.

White-berried Hawthorn.

Maple-leaved Hawthorn.

Glaſtonbury Early-flowering Hawthorn, or Glaſtonbury Thorn.

2. CRATÆGUS *torminalis.* Wild Service-berry Tree, or Maple-leaved *Cratægus. (Large heart-formed, ſeptangular leaves, and bunches of eatable berries.)*

Its large bunches of reddiſh berries of an agreeable tart reliſh, ripen in October and November, and are eatable when they have lain ſome time to become ſoft.

3. CRATÆGUS *Aria, (Aria)* White Beam, or White Leaf-Tree. *(Large, oval, unequally-ſawed, white leaves, hoary underneath.)*

4. CRATÆGUS *Azarolus, (Azarolus)* or Azarole Thorn. *(Obtuſe, ſomewhat three-lobed, dentated leaves, and bunches of eatable berries, ripe in Autumn.)*

Strong-thorned Azarole.

Thornleſs Azarole.

Jagged-leaved Azarole.

Double-flowered Azarole.

5. CRATÆGUS *coccinia.* Scarlet-fruited Great American Azarole, or Cockſpur Hawthorn. *(Oval, angulated, ſawed, ſmooth leaves.)*

6. CRATÆGUS *Crus-galli, (Crus-galli)* or Cockſpur-thorned Virginia Azarole. *(Spear-ſhaped, oval, ſerrated, ſmooth leaves.)*

Long-thorned Cockſpur Azarole.

Short-thorned Cockſpur Azarole.

Pear-tree-leaved.

Plum-tree-leaved.

7. CRATÆGUS *tomentoſa.* Tomentoſe Gooſeberry-leaved

leaved Virginia *Cratægus*. *(Oval, wedge-ſhaped, angulated, ſawed leaves.)*

8. CRATÆGUS *viridis*, Green-leaved Thornleſs Virginia *Cratægus*. *(Spear-ſhaped, oval, almoſt trilobate leaves, green on both ſides.)*

All theſe trees are valuable in moſt of our hardy plantations. The three firſt ſpecies grow naturally in England, the fourth in France and Italy, and all the others are from America; obtaining in ſtature, the firſt ſort fifteen or twenty feet; the ſecond and third, from thirty to forty or fifty; the other five are of much lower growth: they are all furniſhed with leaves only in ſummer, flowering in May or June, moſtly white, produced in bunches from the ſides and ends of the branches, ſucceeded by cluſters of ripe berries in September and October.

Of the moſt uſeful kinds are, the *Common Hawthorn*, for forming the moſt effectual outward hedge-fences in the world, called Quickſet hedges; and the Wild Service, and *Cratægus Azarolus*, as fruit-trees, for their eatable red berries, that ripen in October, and which being then gathered, and hung up in bunches till they become ſoft and mellow, eat with an agreeable acid flavour: and theſe two ſorts, as fruit trees, may be arranged in orchards, avenues, and pleaſure-grounds, &c. as full ſtandards: likewiſe, as timber-trees, they may be arranged in company with other deciduous foreſt-trees, in which they will alſo effect a very pleaſing variety.

Alſo, for ornament and obſervation, all the ſpecies and reſpective varieties demand admittance into our beſt plantations and ſhrubberies, in which they will have a very agreeable effect.

All the ſorts are propagated by ſeed, and occaſionally by layers, and budding or grafting, to continue any deſirable variety diſtinct.

Sow the ſeed, or berries, in autumn, ſuch as the Hawthorn, and all others that can be then obtained, or early in the ſpring, either at once in beds of good earth, two inches deep; or, as the ſeeds, being moſtly of a hard, bony nature, often remain a year in the ground before they vegetate, it is a common practice, previous to ſowing, to bury them in a heap in a trench in dry ground, covered ſix inches deep with earth, to remain thus for a year preparing

paring for vegetation; then to be taken up and ſown either in drills, or broad-caſt over the bed, and earthed over two inches deep, and they will come up freely in the ſpring; and the plants, when a year or two old, to be bedded out in the nurſery, to grow to proper ſize: though the Hawthorn ſets are often proper to plant for hedges immediately from the ſeed-bed, but more eligibly after having one, two, or three years growth in nurſery-rows. But the other plants, deſigned for ſingle ſtandards, muſt remain to be trained up to four, five, or ſix feet height, or more, for final tranſplantation.

Layers of the young lower ſhoots in autumn, will root in one year.

The budding, or grafting, any choice variety, to render it permanent, may be performed upon the Hawthorn, or any other of the *Cratægus* kind the moſt convenient.

Hawthorn hedges are formed various ways; ſome by ſowing the ſeed at once where the hedge is intended; others by planting young ſets, previouſly raiſed from ſeed in a nurſery, as above: they are ſometimes planted entirely on level ground, for interior hedges; at others, ſlanting in the ſide of a bank and ditch, for outward fences; and again, erectly, on the top of the bank, having the ditch on the outſide. Sometimes, in dividing fields, a bank, four, five, or ſix feet wide, is raiſed with a ſmall ditch on each ſide, the ſides formed with ſquare ſpits of turf from the top of the ditch, or elſewhere, and the middle filled up with earth; and being about two feet, or a yard high, a hedge is planted along the top.

The ſets for hedges may be of one or two years old; but if three, four, or more, the thickneſs of a finger, the better.

In planting on level ground, or on the top of a bank, cut out, with a ſpade, a narrow trench, one ſide upright; then, heading the ſets to ſix or eight inches, all an equal length, plant them againſt the upright ſide of the trench, ſix inches aſunder, earthing in the roots and the body of the ſets; and if a double hedge is intended, plant another row in the ſame manner, ſix or eight inches, or a foot from the firſt.

But for outward fences, it is expedient to form a ditch and bank; the ditch to be on the outſide, forming the bank

bank with the excavated earth of the ditch, moderately ſloping: and the thorn ſets to be placed ſide-ways into the ſide of the bank, as you advance in the formation thereof, in two rows, one above another, as follows.—The ditch, being lined out a yard wide at top, is to be digged out, ſloping, two or three feet deep; and the firſt ſpits of earth laid along the top of the inner ſide of the ditch, to form the beginning of the bank: or previouſly lay a row of ſquare ſpit turfs, graſs-ſide downward; and, in either method, back up behind with earth from the ditch. On this lay a row of ſets, with their heads towards the ditch, and pointing a little upward, about three or four inches out, and ſix inches aſunder; earthing them over with mold from the ditch, forming the ditch and bank as you proceed; and having advanced eight, ten, or twelve inches higher, lay another row of ſets as before, landing them up in the ſame manner; and finiſh the formation of the ditch and bank, raiſing the latter a foot or more above the ſets.

But, if judged more eligible, you may firſt form the ditch and bank; raiſing the bank to its full height, and forming a broad border at top, plant two rows of quick, in an upright poſition, in the manner directed for planting on the level ground.

Or, for middle fences in fields, if a double ditch and raiſed bank be intended, in order for planting the hedge at top thereof, line out the baſis of the bank five or more feet wide, with a two or three-feet ditch on each ſide, forming the face of the bank with layers of ſquare ſpit graſs turfs, laid topſy-turvy, beginning the firſt layer cloſe along the inner edges of the ditches, employing the excavated earth thereof in backing up the turfs, and filling up the gorge, or middle ſpace of the bank; ſtill raiſing the front with turfs in regular layers, drawing each ſide in gradually, finiſhing the whole about a yard high, by two or three feet wide at top; there forming a level border of earth, in which to plant the quick-ſets in a double row, in an upright manner, as before explained.

The young hedges planted in either of the above methods, and having the ſets previouſly headed to about ſix, eight, or ten inches, or a foot, according to their ſtrength, will have ſhoots puſhed from all the lower eyes, and be formed thick of wood from the very bottom.

Let

Let them be kept very clear of large, and all running and climbing weeds, till the thorns have advanced in growth.

If any defence againſt cattle appears neceſſary in expoſed places, till the hedge is grown out of danger, it ought to be performed as ſoon as planted, either with railing, hurdles, a dead hedge, or open paling, as ſuits your convenience.

In training the hedges, top them but ſparingly while young, till arrived to the proper height: only juſt trim with the garden-ſhears any rambling top-ſhoots, that greatly out-grow the reſt, that the whole may advance equally, and ſoon arrive to the height intended; being, however, careful to run over the whole top lightly every year, while the hedge is in training, to form it even and regular, as well as to make it ſhoot out below, and thicken as it advances; clipping the ſides alſo evenly every year. And if the hedge is intended for any conſiderable height, as a defence againſt winds, &c. it may be run up faſter, and generally cut up taper on the ſides gradually, to have it conſiderably thinneſt at the top; but, deſigned as a ſtrong outer fence againſt the inroads of cattle, &c. a hedge of three, four, or five feet height, may be ſufficient, eſpecially on the top of a bank; but, on level ground, may be run up ſix or eight feet.

After the hedge is arrived to the propoſed height, it muſt be clipped freely, both at top and ſides, to the proper height and width.

Summer is the moſt eligible ſeaſon for clipping theſe, and all other hedges, when they may be trimmed with conſiderable eaſe, expedition, and truth; and where a neat hedge is required, it is expedient to perform two clippings each ſummer, one in the middle or end of June, the other in the latter end of Auguſt, or in September; but when only one trimming annually is intended, it ſhould be performed in Auguſt, when the ſummer ſhoot is paſt.

But field-hedges are often permitted to run up in their natural growth, without any clipping at all; only after ſeveral years, when grown very high, full of large wood, or naked at bottom, they thin out the ſuperfluous and moſt irregular wood, then plaſh the remainder by cutting a gaſh

gaſh in the ſtems and branches, and lay them along ſlanting, the way of the hedge, ſecured by plaſhing them between other ſtems, &c. left ſtanding erect, but headed down to the height intended; and thus they make a ſtrong, cloſe hedge.

CUPRESSUS, CYPRESS-TREE. Of the claſs and order *Monoecia monadelphia.*

It comprehends delightful coniferous, ever-green and deciduous trees, arriving to conſiderable altitude in a moſt beautiful regularity of growth, very cloſely garniſhed with very ſmall leaves, and ſmall heads of male and female flowers, collected, the males into oval amentums, the females in roundiſh ſcaly cones; no corolla, or petals; many united ſtamina, or anthera; and one very ſhort ſtyle, ſucceeded by a roundiſh, ſcaly cone, involving the ſeeds in the ſcales.

The ſpecies are,

1. CUPRESSUS *ſempervirens.* Sempervirent or Common Ever-green Cypreſs. *(Quadrangular branches, and dark-green, imbricated, erect leaves.)*

Varieties,

Upright Ever-green Cypreſs.

Horizontal Spreading Ever-green Cypreſs.

Portugal Irregular-ſpreading Ever-green Cypreſs, or Cedar of Goa.

2. CUPRESSUS *Thyoides, (Thyoides)* Arbor-Vitæ-leaved Ever-green Canada Cypreſs. *(Two-edged branches, and imbricated leaves.)*

3. CUPRESSUS *diſticha.* Diſtichous-leaved Deciduous American Cypreſs. *(Spreading leaves, ranged in two rows.)*

They are fine ornamental trees, moſtly aſſuming a beautiful pyramidical growth, riſing to a ſtupendous altitude in their native ſoil, branching cloſe and regularly almoſt to the very bottom, and imparting a very fragrant, balſamic odour, accounted exceedingly ſalutiferous; have all very ſmall, thick leaves, which in the ever-green kinds are placed over one another, the other in two rows; and produce their flowers on the ſides of the young branches in ſpring, the female flowers ſucceeding to ſmall ſeed-cones, ripe late in autumn.

Plant theſe moſt beautiful trees plenteouſly in all hardy plantations, for ornament, and to arrange in rows in grand walks

walks and avenues; alſo, as detached, ſingle ſtandards, and in clumps in ſpacious lawns, and other open ſpaces; or in any conſpicuous compartments of the pleaſure-grounds, &c. as in all places they exhibit a ſuperb appearance.

The Ever-green Upright Cypreſs is ſometimes formed into handſome hedges.

Introduce them alſo into the foreſt-tree plantations: none are more worthy of culture, as they will proſper any where, and the timber is of the utmoſt value for its great diuturnity and aromatic property, particularly the *Cupreſſus ſemper-virens.*

Let them be propagated by ſeed, which being cleared from the cones, ſow it in March, in a bed of light earth, evenly over the ſurface, and cover them with earth, half an inch deep. The plants will riſe ſoon the ſame year. Give water in ſummer, and ſhelter from hard froſt; and when a year or two old, plant them out in the nurſery; and having obtained from three or four, to ſix or eight feet height, plant them out where they are deſigned to remain.

CYTISUS, *(Cytiſus)* BASE TREFOIL-TREE. Of the claſs and order *Diadelphia decandria.*

They are deciduous and ever green flowering-tree and ſhrub kinds, with beautiful trifoliate leaves, and numerous long ſpikes, and umbellate cluſters of papilionaceous yellow flowers at the ſides and ends of the branches; having bell-ſhaped bilabiated cups, a corolla with an oval ſtandard, obtuſe wings, and bellied keel, ten united ſtamina, one ſtyle, and oblong ſeed-pods, with kidney ſeeds.

The ſpecies are,

1. CYTISUS *Laburnum, (Laburnum)* Common Laburnum, or Large Deciduous *Cytiſus.* *(Oval-lobed leaves, and long pendulous ſpikes of flowers.)*

Varieties,

Common Broad-leaved Laburnum.
Narrow-leaved Laburnum.
Long-ſpiked Laburnum.
Short-ſpiked Scotch Laburnum.
Variegated-leaved Laburnum.

2. CYTISUS *ſeſſilifolius.* Seſſile-leaved Italian *Cytiſus,*

or

or *Cytiſus Secundus Clutii.* *(Almoſt cloſe-ſitting leaves, and erect flower-ſpikes.)*

3. CYTISUS *nigricans.* Black Auſtrian *Cytiſus.* *(Oval-lobed leaves, and ſimple erect ſpikes.)*

4. CYTISUS *Auſtriacus.* Auſtrian Upright *Cytiſus.* *(Spear-ſhaped lobes to the leaves, and terminal umbels of flowers.)*

5. CYTISUS *ſupinus.* Trailing Siberian *Cytiſus.* *(Oval-lobed leaves, and terminating umbels of flowers.)*

6. CYTYSUS *hirſutus.* Hairy Ever-green Spaniſh *Cytiſus.* *(Pendulous lateral ſpikes, with hairy cups.)*

They are all eminent furniture for pleaſurable plantations, as fine flowering ſhrubs; though the firſt ſort *(Laburnum)* and varieties are of the moderate tree kind, twenty feet high, or more; the others are of the ſhrub-tribe, from four or five, to ſix or eight feet high; all the ſorts having leaves compoſed of three diſtinct lobes on each pedicle, or footſtalk, called trifoliate leaves; and the flowers appear profuſely in ſpikes and bunches, very ornamentally, in May and June, ſucceeded by plenty of ripe ſeed-pods in autumn.

Propagate them by ſeed, layers, and cuttings, but moſtly by ſeed, ſown in March, in beds of common earth, drilled, or bedded in an inch deep; they will come up the ſame year; and next ſpring, put out the plants in the nurſery to be trained with ſingle ſtems and full heads, for the ſhrubbery, &c. Layers and cuttings of the young ſhoots, in autumn, will grow.

D.

DAPHNE, SPURGE-LAUREL and *Mezereon.* Of the Claſs and order, *Octandria monogynia.*

They are ever-green and deciduous ſhrubs for adorning the ſhrubbery, with long ſpear-ſhaped, and ſmall oval leaves, and numerous ſmall, four-parted flowers along the ſides of the ſhoots; having a ſmall funnel-ſhaped, four-parted corolla, eight ſtamina, and an oval germen with one ſtyle, ſucceeded by a round, one-ſeeded berry.

The

The ſpecies are,

1. DAPHNE *Laureola*, *(Laureola)* Common Evergreen Spurge Laurel of the Woods. *(Long, ſpear-ſhaped, ſtiff, ſmooth, ſhining leaves, with flowers in cluſters, and black berries.*

Variegated-leaved Spurge Laurel.

2. DAPHNE *Mezereum*, *(Mezereum)* Common Mezereon. *(Oval leaves, with flowers, three together, very ornamentally, early in the ſpring.)*

Varieties.

Purple-flowered, and red berries.

Pale-red-flowered.

Crimſon-flowered.

White-flowered, and yellow berries.

Variegated-leaved.

3. DAPHNE *Cneorum*, *(Cneorum)* Narrow-leaved Hungarian *Daphne*. *(Spear-ſhaped, naked leaves, and terminating cluſters of flowers.)*

4. DAPHNE *alpina*. Alpine Downy-leaved *Daphne*. *(Spear-ſhaped, obtuſe, downy leaves, and lateral cloſe-fitting, aggregate flowers.)*

Hoary-leaved Alpine Daphne.

5. DAPHNE *Tarton raira*, *(Tarton raira.)* Tarton rair, or Montpelier Silvery-leaved *Daphne*.

Theſe are all moderate ſhrubs, of upright growth, from two or three, to four or five feet high, eminent for ornamenting the pleaſure-ground. The *Laureola*, a native of our woods, is a delightful little ever-green; and the Mezereon is a ſingularly beautiful early-flowering ſhrub of the deciduous tribe, flowering admirably ornamental in January, February, and the early part of March, all along the upper ſhoots, and diffuſing a delicious fragrance.

Propagate all the ſorts from ſeeds (berries) ſown in October, November, &c. or in the ſpring, in any light earth, drilled or bedded in an inch deep; alſo by layers of the young ſhoots, and ſuckers from the roots.

DIOSPYROS, INDIAN DATE-PLUM. Of the claſs and order *Polygamia dioecia*.

It furniſhes two deciduous, exotic tree-kinds, from Africa and America, of moderate growth, proper for variety in ornamental plantations; garniſhed with ſimple

leaves, and hermaphrodite and male and female flowers, in two diſtinct plants; having one-leaved divided cups, a monopetalous, four-parted corolla, eight ſtamina, one ſtyle, and large globular fruit of the berry kind, with many ſeeds.

The ſpecies are,

1. DIOSPYROS *Lotus*, *(Lotus)* Falſe *Lotus*, or Indian Date-Plum. *(Leaves having the ſurface of two colours.)*

2. DIOSPYROS *Virginiana*. Virginia Piſhamin Plum. *(Leaves having the ſurface all of one colour.)*

They claim admittance in every good ſhrubbery in the deciduous collection, and may be raiſed from ſeed ſown in the ſpring, either in the full ground, or in pots, in order to be forwarded in a hot-bed, juſt to bring up the plants, being ſheltered from froſt for a winter or two; then planted into the nurſery, and other plantations, to remain, in a defended ſituation.

DIRCA, LEATHERWOOD. Of the claſs and order *Octandria monogynia*.

It is a low, deciduous ſhrub of North America, for variety; adorned with oval, yelloviſh leaves, and a club-ſhaped, monopetalous, bellied flower, with eight ſtamina and one ſtyle, ſucceeded by a one-ſeeded berry.

The ſpecies is,

DIRCA *paluſtris*. Marſh Virginia Leatherwood.

Plant it in the ſhrubbery clumps, in a moiſt ſituation; and you may propagate it by ſeeds, and by layers and cuttings of the young wood.

E.

ELÆAGNUS, WILD OLIVE-TREE. Of the claſs and order *Tetrandria monogynia*.

They are deciduous flowering-ſhrubs, of exotic growth; decorated with ſpear-ſhaped and oval ſilvery leaves, and ſmall apetalous flowers, conſiſting of monophyllous, quadrifid, coloured cups, no petals, four ſtamina, one ſtyle, and ſmall olive-ſhaped fruit, containing an obtuſe nut.

The ſpecies are,

1. ELÆAGNUS *anguſtifolia*. Narrow-leaved Bohemian *Elæagnus*. *(Spear-ſhaped leaves.)*

2. ELÆ-

2. ELÆAGNUS *latifolia*. Broad-leaved Indian *Elæagnus*. *(Oval leaves.)*

Plant theſe ſhrubs in any conſpicuous compartment of the ſhrubbery, in a ſheltered ſituation: you may propagate them by layers and cuttings of the young ſhoots, in the ſpring; and the cuttings may be forwarded in a hot-bed.

EMPETRUM, BLACK-BERRIED HEATH, or *Crowberry*. Of the claſs and order *Dioecia tetrandria*.

It is a low under-ſhrub, with very ſmall leaves, ſmall male and female flowers, ſeparated on different plants; having three ſmall petals, three ſtamina and one ſtyle, ſucceeded by a roundiſh nine-ſeeded black berry.

The ſpecies is,

EMPETRUM *nigrum*. Black *Empetrum*, or Black-berried Heath. *(Trailing ſtalks.)*

This is a mountainous plant in England, &c. in boggy ſituations; is introduced in the ſhrubbery collections for variety, in moiſt places; and may be propagated by ſeed, in a ſhady border, in the ſpring; alſo by layers, and off-ſets emitted from the bottom.

EPHEDRA, SHRUBBY HORSE-TAIL. Of the claſs and order *Dioecia monadelphia*.

This compriſes two under-ſhrubby ever-greens, with ruſhy-like ſhoots and leaves, male and female flowers in amentums, &c. on ſeparate trees, no corolla, or petals, ſeven monadelphous ſtamina, two oval germens and ſhort ſtyles, ſucceeded by oval two-ſeeded berries.

The ſpecies are,

1. EPHEDRA *diſtachya*. Shrubby Horſe-Tail, *with twin amentums*.

2. EPHEDRA *monoſtachya*. Dwarf Shrubby Horſe-Tail, *with ſingle amentums*.

Diſpoſe them in the front of ſhrubberies: they are propagated by ſuckers, and by layers of the young ſhoots.

EPIGŒA, TRAILING ARBUTUS. Of the claſs and order *Decandria monogynia*.

It is a trailing flowering-ſhrub, with oblong, waved leaves, and looſe bunches of white flowers at the end of the branches; having a double ſix-leaved *perianthium*, a monopetalous, tubulous, ſalver-ſhaped corolla, five-parted above; ten ſtamina, a globular germen with a quinquefid

ſtigma, ſucceeded by a globoſe, pentangular, many-ſeeded fruit.

The ſpecies is,

EPIGÆA *repens*. Trailing Virginia *Epigæa, with repent, or rooting ſtalks.*

Arrange it forward in the ſhrubbery clumps; and propagate it by its rooting-ſtalks and off-ſets, detached in autumn or ſpring: alſo by layers and cuttings, in the ſame ſeaſons.

ERICA, HEATH. Of the claſs and order *Octandria monogynia.*

This genus comprehends moſtly low, under-ſhrubby, wild plants of England, &c. retained in many of our eminent ſhrubberies for variety, being of humble, buſhy growth, cloſely garniſhed with very ſmall ſimple leaves, and numerous quadrifid flowers, arranged along the upper part of the ſhoots, very ornamentally; having four-leaved coloured cups, a ſmall ſwelling four-parted corolla, eight filaments, and one ſtyle, ſucceeded by a quadrilocular ſeed-capſule.

The ſpecies of moſt note are,

1. ERICA *vulgaris*. Common Wild Engliſh Heath. *(Arrow-ſhaped, oppoſite leaves, and unequal corolla.)*

Varieties,

Purple-flowered Common Heath.

White-flowered Common Heath.

2. ERICA *cinerea*. Cinereous, or Aſh-coloured Heath. *(Linear, ſmooth leaves, by threes.)*

3. ERICA *ciliaris*. Ciliated, or Hairy-edged-leaved Heath. *(Hairy-edged leaves, by threes.)*

4. ERICA *tetralia*. Croſs Four-leaved Heath. *(Leaves by fours, ſpreading and ciliated.)*

5. ERICA *multiflora*. Multiflorous Five-leaved Heath. *(Leaves by fives, ſpreading out.)*

Theſe are all under-ſhrubby plants of very hardy growth, inhabitants of wild heaths in England, but retained in many curious gardens, to increaſe the variety in ſhrubbery collections, where, being diſpoſed in the fronts of the compartments, they will effect a very agreeable diverſity in their different minute foliage, and numerous ſmall flowers, appearing very ornamentally all ſummer and autumn.

They

They propagate abundantly by off-ſet root-ſuckers, and layers of the branches; and may alſo be raiſed from ſeed, ſown half an inch deep; either of which methods ſhould be followed early in autumn or ſpring.

EUONYMUS *(Euonymus)* SPINDLE-TREE. Of the claſs and order *Pentandria monogynia.*

They are large deciduous, and ever-green flowering-ſhrubs, garniſhed with oval and ſpear-ſhaped leaves, and ſpreading greeniſh or whitiſh flowers in cluſters; having four or five-parted cups, a corolla of four or five oval ſpreading petals, five ſtamina, and one ſtyle, ſucceeded by quadrangular and pentangular, ſucculent, quinquelocular capſules, with four or five red, berry-like ſeeds, the capſules opening naturally when ripe, in October, and diſcovering the ſeeds very ornamentally great part of the winter.

The ſpecies are,

1. EUONYMUS *europæus.* European Deciduous Spindle-Tree. *(Oblong, oval leaves, the flowers moſtly quadrifid.)* Grows wild in England, in hedges, woods, &c.

Varieties.

Narrow-leaved Spindle-Tree.
(Latifolius) Broad-leaved Spindle-Tree.
Variegated-leaved Spindle-Tree.
Red berried.
Pale-red-berried.
White-berried.

2. EUONYMUS *americana.* American Ever-green Spindle-Tree. *(Broad, ſpear-ſhaped leaves, and all the flowers quinquefid.)*

Variety,

Variegated-leaved.

They grow ſix or eight feet high, and are eſtimated as ornamental furniture for all pleaſurable plantations in any common ſoil, &c. the firſt particularly, both as a flowering-ſhrub, and for the ſingularity of its red, granulous ſeeds, diſcloſed in the open capſules; and the ſecond, alſo, as a handſome ever-green.

Propagate them by ſeeds, layers, and cuttings: ſow the ſeeds in autumn or ſpring, an inch deep, for tranſplantation in nurſery-rows; and perform the layers and cuttings on the young ſhoots, the cuttings in a ſhady border.

F.

FAGUS, Beech-Tree and Chesnut. Of the class and order *Monœcia polyandria.*

It comprehends large deciduous foreſt, fruit, and ornamental trees of ſtupendous growth, garniſhed with large oval and ſpear-ſhaped leaves, and male and female flowers apart on the ſame tree, in globular and cylindric catkins; having four and five-parted cups, no petals, many male filaments, three ſtyles; and the germen ſucceeds to a large round, ſpinous capſule, containing two or more nuts, ſmall in the Beech, in the Cheſnut large, with fine eatable kernels.

The ſpecies are,

1. Fagus *ſylvaticus.* Common Beech-Tree of the Woods. *(Oval leaves, ſlightly ſerrated.)*

Varieties.

Yellow-ſtriped-leaved.
White-ſtriped-leaved.
Purpliſh-leaved.

2. Fagus *Caſtanea, (Caſtanea)* Cheſnut-Tree. *(Large, long, ſpear-ſhaped, acutely-ſerrated leaves, naked underneath.)*

Varieties.

Manured, or Large Sweet-fruited Spaniſh Cheſnut.
Wild, or Smaller Cheſnut.
Gold-ſtriped-leaved.

3. Fagus *pumila.* Dwarf American Cheſnut-Tree, or *Chinquepin. (Spear-ſhaped-oval, acutely-ſerrated leaves, downy underneath.)*

They are eminent to arrange in all principal plantations; but the firſt two ſpecies have ſingular merit as moſt valuable foreſt or timber-trees; the Beech attaining from ſeventy or eighty, to an hundred feet in height, or more; growing expeditiouſly with a ſtraight handſome ſtem, and obtaining a great magnitude: the Cheſnut, fifty or ſixty feet, or more, with a noble ſpreading head, with luxuriant foliage, forming a delightful umbrage: this ſort is alſo in great reputation as a fruit-tree, in large orchards, avenues, &c. for its nuts. The *Fagus pumila,* being of moderate growth,

growth, is proper furniture for the ſhrubbery; and the Common Beech, alſo, was formerly in eſtimation for compoſing ornamental garden-hedges; likewiſe hedges for ſhelter.

They being all of the deciduous tribe, are in leaf only in ſummer, and the flowers come out in May and June, but make no appearance, only for botanic obſervation. Thoſe of the Beech ariſe in roundiſh heads, ſucceeded by ſmall triangular nuts, called Beech Maſt, falling ripe from the trees about Michaelmas, when they are excellent for feeding ſwine and large poultry; and the flowers of the Common Cheſnut, and *Chinquepin*, are collected in long catkins, ſucceeded by large prickly capſules, containing large, roundiſh, brown nuts, with their membraneous ſhells filled with a tender, ſweet kernel, ripe about Michaelmas, and continue in eating all winter, if well preſerved.

The Beech and Common Cheſnut may be cultivated for timber-trees, in almoſt any ſoil and ſituation, either by plants from a nurſery, or the nuts ſown at once where they are to remain, drilled in rows five or ſix feet aſunder to allow for thinning; ſome for poles, and others to grow up to large ſtandards.

The Cheſnut, as a fruit, may be planted in boundaries of orchards, arranged in avenues, parks, out grounds, and hedge-rows, forty feet aſunder, in rows, or planted ſingly, or in clumps.

Let all the ſpecies, alſo, have places in every large ornamental plantation.

They are all raiſed with eaſe and in abundance, principally from the nuts, ſown in autumn or ſpring; the Beech bedded in an inch deep; the Cheſnuts preſerved ſound in ſand till February, then drilled in, two or three inches deep; and the plants, at a year or two old, ſet out in nurſery lines, and trained with ſingle ſtems, with the leading top ſhoot intire, to ſhoot up as faſt as poſſible, from five or ſix, to eight or ten feet high; and then planted finally.

Any deſirable varieties of the Beech and Common Cheſnut, &c. may be rendered permanent by layers, and by budding, &c.

FICUS, FIG-TREE. Of the claſs and order *Polygamia trioecia*.

This

This famous genus, *Ficus*, affords a moſt eminent fruit-tree, beautifully adorned, in ſummer, with large, elegant, palmated leaves; but the flowers, male, female, and androgynous, on three diſtinct plants, are wholly concealed within the common receptacle, which appears firſt like a ſmall round bud on the ſides of the young ſhoots; conſiſting of a general cup, incloſing, in a concealed order, numerous minute chaffy florets without petals, but with three briſtly ſtamina, and two ſtyles; and the general receptacle, or cover, containing the florets, becomes the fruit, gradually augmenting in ſize, top or pear-ſhaped, filled with a ſoft ſubſtance; and the florets ſucceed to numerous ſeeds, the whole ripening ſoft and tender, with a delicious rich pulp, in Auguſt and September, fit for immediate eating off the trees.

There is but one hardy ſpecies, which is diffuſive in many fine varieties; and the ſpecies is,

Ficus *Carica*, *(Carica)* Common Fig-Tree. *(Large palmated leaves.)*

The varieties of the fruit are known by the following names:

Early Long Blue, or *Purple Fig.*
Early White Fig.
Large Blue Fig.
Large Brown, or *Cheſnut Fig.*
Small Brown Iſchia Fig.
Black Iſchia Fig.
Green Iſchia Fig.
Brown Malta Fig.
Black Genoa Fig.
Large White Genoa Fig.
Round Brown Naples Fig.
Long Brown Naples Fig.
Black Provence Fig.
Brown Madonna, or *Brunſwick Fig.*

All theſe and many more are the offſpring of one common ſpecies; and the trees of all the varieties grow fifteen or twenty feet high, or more, with long ſlender branches, making numerous, ſtrong, ſucculent, green ſhoots, and with large leaves, divided more or leſs in the palmated way, producing the fruit always on the young ſhoots only: thoſe produced one year bear the fruit the year following, emitted

emitted in ſpring immediately from the eyes of the ſhoots, firſt like ſmall green buds, gradually increaſing in volume, as before deſcribed; ripening in Auguſt and September, to a blue, purple, white, black, or brown colour.

But, as many ſecondary or after-fruit riſe on the ſhoots of the year in ſummer, attaining quarter or half ſize, but do not attain perfection in England in the open air, they ſhould be diſplaced in autumn, at the fall of the leaf.

The Fig-Tree being originally an exotic, from ſouthern warm countries, we muſt train it principally as a wall-tree againſt warm ſouth walls, for the main crops; and occaſionally, in ſunny expoſed eſpaliers; arranging the branches horizontally, eight or ten inches aſunder; always retaining a general ſupply of the young ſhoots of each year for ſucceſſion-bearers; and at the ſame time, in winter pruning, cutting out a proportionable ſhare of the old bearers, to give due ſcope to arrange the ſucceſſional ſhoots, which muſt be always trained in at their natural length, becauſe they generally bear the fruit towards the upper parts, ſo that, if ſhortened, it would cut away the bearing-wood, and force out a redundancy of uſeleſs ſhoots in ſummer.

Some may alſo be trained as quarter, or half ſtandards, with from two or three, to four or five-feet ſtems, and full heads, to plant in ſome defended ſunny ſituation.

Their culture, &c.

The trees are propagated expeditiouſly by ſuckers, layers, and cuttings: Suckers riſing from the bottom, may be dug up in autumn or ſpring, with roots, and planted either in rows in the nurſery, to be trained, or at once where they are to remain. Layers of the young branches and ſhoots, in ſpring, will root freely the ſame year, fit to plant off in autumn; and cuttings of the ſhoots of a year old, planted in a ſhady border in the ſpring, will be rooted, and have formed ſhoots above by the end of the ſummer. Obſerve, in either method, to let thoſe for walls and eſpaliers be headed down within eight or ten inches of the ground, to force out lower branches, as a proper foundation to furniſh others regularly upward; but let thoſe for ſtandards run up with a ſingle ſtem to the height intended, then branch out at top, and form the head.

In planting them in the garden, againſt walls, or in eſpa-

eſpaliers, ſet them twenty feet diſtance, to have full ſcope to extend the branches horizontally, increaſing the number of branches annually, arranged from ſix, to eight or ten inches diſtance, one above another, till they cover the wall, &c. regularly.

They will require pruning every year, in ſummer and winter.

In ſummer-pruning, diſplace only the fore-right and other very irregular ſhoots of the year, and train cloſe all the regular-placed ſide-ſhoots at full length, to chuſe out of in winter-pruning for next year's bearers; and in vacancies you may pinch any convenient ſhoot of the year, early in June, to a few eyes, to obtain laterals the ſame ſummer, to fill the void ſpace.

The winter-pruning ſhould not be begun till February or March, as the froſt often makes great havock among theſe ſucculent ſhoots; and by leavi g the whole till ſpring, enough may eſcape the danger to chuſe out of, to furniſh the tree, to produce next ſummer's fruit. Select, for bearers, the robuſt, ſhort-jointed, firm ſhoots, on every part from the very bottom to the top, at proper diſtances, retrenching the ſuperabundancy cloſe to the mother branches, together with part of the former bearers; and any long, naked, old branches, not furniſhed with young bearing wood, cut out either entirely, or to the firſt beſt ſhoot, as ſeems the moſt expedient; retaining all the ſelect ſhoots at full length; and train in the whole, ſtraight and cloſe to the wall, at the diſtance before adviſed.

FRAXINUS, Ash-Tree. Of the claſs and order *Polygamia dioecia*.

This genus comprehends a moſt valuable deciduous foreſt-tree, and ſome for variety and ornament; garniſhed with compound pinnated leaves, of ſeveral pair of oblong lobes arranged along the middle rib, terminated by an odd one, and bunches of greeniſh flowers, male, female, and hermaphrodite, on the ſame and different trees; having, in ſome ſpecies, ſmall cups, and corolla, and in others none at all *(apetalous)*, two ſtamina, and one ſtyle, ſucceeded by bunches of compreſſed pericarpiums, or ſeed-veſſels, called Aſh-keys, ripe in autumn, abundantly in the Common Aſh, in England.

There

There are three ſpecies, viz.

1. FRAXINUS *excelſior*. Loftieſt, or Common Aſh-Tree. *(Folioles of the leaves ſawed, and the flowers without petals.)* Grows naturally in our woods and hedges.

Varieties.

White-ſtriped-leaved.

Yellow-ſtriped-leaved.

2. FRAXINUS *americana*. American Broad-Keyed Aſh. *(Folioles of the leaves entire.)*

Varieties.

Black American Aſh.

White American Aſh. (Fraxinus Nova-Anglia.)

Red American Aſh.

3. FRAXINUS *Ornus, (Ornus)*. Flowering Aſh. *(Folioles of the leaves ſawed, and flowers having petals.)*

Varieties.

Dwarf Flowering Aſh.

Larger Flowering Aſh.

4. FRAXINUS *rotundifolia*. Round-leaved Calabrian Manna Aſh. *(Folioles of the leaves oval.)* From the leaves of this ſort, it is ſuppoſed, the Manna is exſuded and collected in Calabria.

Theſe trees ſhould aſſemble in large hardy plantations; but the Common Aſh particularly, as a firſt-rate timber-tree, being of ſwift growth, arriving at ſixty or ſeventy feet ſtature; the American Aſh not ſo much, and the others about fifteen or twenty. They are all of the deciduous and compound-leaved tribe, the Common Aſh having leaves of five pair of lobes, and an odd one; and the other ſorts from three or four, to five pair, terminated alſo by an odd lobe. The flowers being moſtly without petals, and of a green colour, are not conſpicuous, except in the Flowering Aſh; and hardly any but the Common Aſh are ſucceeded by ripe ſeed in any abundance in England.

Conſidered as foreſt-trees, the Common Aſh is of great worth: the American Aſh alſo demands culture in all the foreſt-tree collections; but the Common Aſh, particularly, ſhould be cultivated abundantly in woods and hedge-rows, and both as underwood for poles, and as ſtandards for timber, being of exceeding great value in many employments. A wood may be formed of them, either from nurſery-raiſed plants, or by ſowing the ſeed at once to remain,

remain, drilled in an inch deep, in rows, five or ſix feet aſunder, and thinning the plants gradually for poles, &c. when ſeven, eight, or ten years old; a ſufficiency of the beſt being left to grow up to large ſtandards for timber.

They are propagated by ſeed; the common ſort in autumn, the others in ſpring, or as ſoon as obtained, in four-feet beds, drilled or bedded in an inch deep. The plants will come up in the ſpring, and at a year's growth ſhould be planted out in three-feet-wide rows in the nurſery, and trained with ſingle ſtems, from three to ſix feet high, or more, for planting out finally.

Any of the foreign ſorts, of which the ſeed cannot be readily obtained, may be propagated by layers, or budded upon ſtocks of the Common Aſh.

G.

GAULTHERIA, GAULTHERIA. Of the claſs and order *Decandria monogynia*.

It is a procumbent under-ſhrub, with oval leaves, and greeniſh flowers, having double cups, a five-parted corolla, ten ſtamina, one ſtyle, and a pentangular capſule, with many-ſeeded berries.

The ſpecies is,

GAULTHERIA *procumbens*. Procumbent, or Trailing *Gaultheria*.

Plant it in the ſhrubbery; and you may propagate it by ſeed, and laying its trailing branches.

GENISTA, JOINTED BROOM. Of the claſs and order *Diadelphia decandria*.

They are low, floriferous, deciduous under-ſhrubs, with ſlender, angulated, and taper greeniſh branches, garniſhed with oval, ſpear-ſhaped, and trifoliate leaves, &c. in the different ſpecies; and papilionaceous yellow flowers, ſingle, and in cluſters, at the ends of the branches; having monophyllous bilabiated cups, an oval reflexed vexillum, two ſhort wings, and long carina; ten diadelphous ſtamina, and one ſtyle, ſucceeded by roundiſh bivalvous pods, with kidney ſeeds.

The ſpecies are,

1. GENISTA *ſagittalis*. Arrow-ſhaped Jointed Broom. *(Two-edged jointed trailing branches, and oval leaves.)*

2. GE-

2. GENISTA *tinctoria.* Dyer's Broom. *(Taper, channelled, erect branches, and lancet-ſhaped ſmooth leaves.)* Uſed by the dyers.

3. GENISTA *anglica.* Dwarf Engliſh Broom, or Petty-Whin. *(Single ſpines, floriferous ſpineleſs branches, and ſpear-ſhaped leaves.*

4. GENISTA *candicans.* Upright Trifoliate Italian Broom, or Montpelier Cytiſus. *(Trifoliate hairy leaves, and lateral peduncles, with five flowers.)*

5. GENISTA *tridentata.* Tridented, or Three-pointed-leaved Portugal Broom. *(Three-cornered jointed branches, and leaves having three points.)*

6. GENISTA *florida.* Flowering Spaniſh Dyer's Broom. *(Taper, ſtriated branches, ſilky leaves, and many cluſters of flowers.)*

7. GENISTA *piloſa.* Hairy Tuberculated Trailing Broom. *(Procumbent tuberculated ſtalks, and ſpear-ſhaped obtuſe leaves.)*

Theſe ſhrubs may be planted any where in the ſhrubbery, for variety and ornament, as flowering-ſhrubs; they flower abundantly in May, June, and July, effecting a very agreeable diverſity, and furniſhing plenty of ſeeds for propagation.

They are propagated with facility by ſeed, ſown in October, &c. drilled or bedded in an inch deep; and the young ſeedling plants ſhould be ſet out in the nurſery, to train for the ſhrubbery.

GLEDITSIA, TRIPLE-THORNED ACACIA. Of the claſs and order *Polygamia dioecia.*

This genus furniſhes two or three fine ornamental deciduous American trees, of thirty feet ſtature, armed with thorns, and garniſhed with moſt elegant, long, compound, doubly-pinnated leaves, of near two hundred diſtinct lobes or folioles, arranged along both ſides of the pedicles; and long cylindric amentums of greeniſh tripetalous flowers of three different ſexes, on two diſtinct plants; having three and five-parted cups, a corolla of three roundiſh petals, ſix ſtamina, a broad germen with one ſtyle, ſucceeded by large flat pericarpiums, having roundiſh ſeeds.

The ſpecies are,

1. GLEDITSIA *triacanthos*. Three-thorned Virginia Acacia. *(Strong thorns by threes, at the axil as.)*

2. GLEDITSIA *Monoſperma*, Monoſpermous or One-ſeeded *Gleditſia*, or Water Acacia. *(Oval pods, with but one ſeed.)*

3. GLEDITSIA *inermis*. Unarmed or Thornleſs *Gleditſia*. *(Smooth, or without thorns.)*

Plant theſe fine trees any where, for ornament and variety, in the principal hardy plantations, and large ſhrubbery compartments: they will appear delightful in ſummer, with their abundant and ſingular-winged leaves; and are propagated by ſeed ſown in the ſpring, half an inch deep, in light earth. The plants muſt be ſet out in nurſery-rows, and trained with clean ſingle ſtems, for tranſplantation where wanted.

GLYCINE, CAROLINA KIDNEY-BEAN-TREE. Of the claſs and order *Diadelphia decandria*.

It is a ſhrubby volubiate climber, with fine pinnated leaves, and papilionaceous blue flowers in cluſters; having two-parted cups, a corolla with a heart-ſhaped vexillum, oval wings and crooked keel, ten diadelphous ſtamina, one ſtyle, and oblong ſeed-pods.

The ſpecies is,

GLYCINE *fruteſcens*. Shrubby *Glycine*, or Carolina Kidney-Bean-Tree. *(Perennial ſtalks, and equally-winged leaves.)*

Plant it in the ſhrubbery as a twining climber, and propagate it by layers; alſo by ſeed, ſown in the ſpring, half an inch deep.

GUILANDINA, BONDUC, or NICKAR-TREE. Of the claſs and order *Decandria monogynia*.

It compriſes only one hardy ſpecies, a fine deciduous ornamental tree, with large doubly-winged leaves; and with flowers of five concave petals, ten ſtamina, one ſtyle, and rhomboid ſeed-pods.

GUILANDINA *dioecia*. Dioecious Canada Bonduc. *(Smooth or prickleſs ſtems, and doubly-pinnated leaves, ſingly winged at the baſe and top.)*

Arrange it in the pleaſure-ground, &c. You may raiſe it from ſuckers, from cuttings of its upper running roots, and by ſeed from abroad.

H. HALE-

H.

HALESIA, HALESIA. Of the claſs and order *Decandria monogynia.*

This compriſes tall, upright, deciduous flowering-ſhrubs of America, with ſpear-ſhaped and oval ſimple leaves, and cluſters of white bell-ſhaped flowers, with twelve ſtamina and one ſtyle, ſucceeded by oblong quadrangular and biangular nuts, with two ſeeds.

The ſpecies are,

1. HALESIA *tetraptera.* Tetragonous or Quadrangular-fruited Carolina *Haleſia. (Spear-ſhaped oval leaves, with glandulous foot-ſtalks.)*

2. HALESIA *diptera.* Two-angled-fruited Carolina *Haleſia. (Oval leaves, with ſmooth foot-ſtalks.)*

Diſpoſe them in the ſhrubbery, and other ornamental plantations, as flowering-ſhrubs. Propagate them by ſeeds, in the ſpring, in a ſheltered border, or in pots, to be placed in the ſhade all ſummer, and in a place ſkreened from froſt in winter; likewiſe, pot ſome of the young plants, in order to their being defended from cold the firſt winter or two, and then turned out into the full ground.

HAMAMELIS, WITCH-HAZEL. Of the claſs and order *Tetrandria digynia.*

It is a moderate deciduous ſhrub of America, for pleaſurable plantations, with oval rough leaves, like thoſe of the Hazel-tree, and four-leaved flowers in cluſters; having a triphyllous involucrum, and double ſix-leaved cups, a corolla of four long narrow petals, four ſtamina, and two ſtyles, ſucceeded by an oval nut, in the permanent calyx. It rarely ripens in England.

HAMAMELIS *Virginiana.* Virginia Witch-Hazel.

It is propagated by ſeed, and by layers: ſow the ſeed in March, half an inch deep, and it will come up the ſecond ſpring. Layers of the young wood, ſlit-laid, will readily grow.

HEDERA, IVY-TREE. Of the claſs and order *Pentandria monogynia.*

It compriſes two famous ſhrubby rooting-ſtalked climbers,

conſiſting of an ever-green, and a deciduous plant, mounting upon walls, buildings, and trees, by their rooting ſtems emitting cirrhoſe fibres into the walls, &c. as they aſcend; cloſely attaching themſelves thereto, fifty or ſixty feet high, or more. They are garniſhed with oval-lobated, and five-lobed leaves, in the different ſpecies; and corymbous cluſters of greeniſh flowers, having a many-parted general involucrum, five-parted cups, five oblong petals, five ſtamina, and one ſtyle, ſucceeded by cluſters of five-ſeeded berries, ripe in winter.

The ſpecies are,

1. HEDERA *Helix*, *(Helix)* or Common Ever-green Ivy. *(Ovaliſh and lobated leaves.)*

Varieties.

Common Green Ivy.
Silver-ſtriped-leaved Ivy.
Gold-ſtriped-leaved Ivy.
Black-berried Ivy.
Yellow-berried Ivy.
Dwarf Creeping Ivy.

2. HEDERA *quinquefolia*: Five-leaved Deciduous Ivy, or Virginia Creeper. *(Five ovaliſh-lobed, fingered, ſawed leaves.)*

They are proper to plant as climbers, againſt walls, buildings, or any ſort of fence; the Common Ivy, alſo, to run up large trees, &c. the *Hedera quinquefolia* is likewiſe a famous creeper for city-gardens, court-yards, and balconies, as it will thrive in the cloſeſt places, and aſcend to the top of the loftieſt buildings.

Let them be propagated in autumn or ſpring, by layers and cuttings of the young ſhoots, which will root freely; the Common Ivy, alſo, by ſeed, in a ſhady border.

HIBISCUS, ALTHÆA FRUTEX, or SYRIAN MALLOW. Of the claſs and order *Monadelphia polyandria.*

It is an elegant, upright, deciduous flowering-ſhrub, of great merit for adorning the ſhrubbery: it is garniſhed with cuneiform, ovaliſh, lobated leaves, and numerous large fine flowers, in July and Auguſt; having double many-parted cups, five broad heart-ſhaped petals, numerous united ſtamina, a ſlender ſtyle, and a quinquevalvular capſule, with kidney ſeeds.

Only

Only one hardy ſhrubby ſpecies, viz.

HIBISCUS *ſyriaca*. Syrian Shrubby *Hibiſcus*, or Common *Althæa Frutex*. *(Wedge-ſhaped ovaliſh leaves, cut and indented above.)*

Varieties.

Red-flowered Althæa Frutex.
Purple flowered.
White-flowered.
Yellow flowered.
Gold-ſtriped leaved.
Silver-ſtriped-leaved.
Variegated-leaved.

Admit this fine ornamental flowering-ſhrub in the moſt conſpicuous compartments of the pleaſure-ground; and you may propagate it abundantly by ſeed ſown in the ſpring, and continue the varieties by layers and cuttings of the young ſhoots, or by budding or ingrafting.

HIPPOPHÆA, SEA-BUCKTHORN. Of the claſs and order *Dioecia tetrandria.*

They are large deciduous ſhrubs for variety, with ſpear-ſhaped and oval leaves, hoary underneath, and male and female flowers on ſeparate plants, with four ſtamina, a ſhort ſtyle, and a globular one-ſeeded berry.

The ſpecies are,

1. HIPPOPHÆA *Rhamnoides*, *(Rhamnoides)* or Willow-leaved European Sea-Buckthorn. *(Spear-ſhaped leaves.)*

2. HIPPOPHÆA *canadenſis*. Canada Oval-leaved Sea-Buckthorn. *(Oval leaves.)*

They form a good variety in aſſemblage, in ornamental plantations; and are propagated freely by root-ſuckers, layers, and cuttings of the young wood.

HYDRANGEA, HYDRANGEA. Of the claſs and order *Decandria digynia.*

It is a low, deciduous under-ſhrub, with heart-ſhaped oppoſite leaves, and cymoſe umbels of white flowers; having five roundiſh petals, ten ſtamina, and two ſtyles, ſucceeded by horned capſules.

HYDRANGEA *arboreſcens*. Arboreſcent Virginia *Hydrangea.*

Plant it in the ſhrubbery, &c. it is propagated by its off-ſet ſtalks from the bottom, and by ſuckers, &c.

HYPERICUM, St. John's Wort. Of the claſs and order *Polydelphia polyandria.*

They are ornamental deciduous flowering ſhrubs, and under-ſhrub kinds, of moderate growth, riſing moſtly with ſeveral ſtems, decorated with oblong, oval, ſpear and heart-ſhaped ſimple leaves, in oppoſite pairs; and the branches terminated by numerous cluſters of pentapetalous yellow flowers, in June, July, and Auguſt; having five-parted perſiſtent cups, five oval petals, numerous ſtamina in ſeveral bodies, and one, three, or five ſtyles, ſucceeded by roundiſh capſules, with numerous ſeeds, ripe in autumn for ſowing.

The moſt noted hardy ſpecies are,

1. Hypericum *hircinum.* Stinking Shrubby St. John's Wort. *(Shrubby two-edged ſtem, and the flowers with three ſtyles.)*

Varieties.

Common Rank-ſmelling St. John's Wort.
(Inodorum) Scentleſs-flowered.
Variegated-leaved.

2. Hypericum *Androſæmum, (Androſæmum.)* Common Tutſan, or Park-loaves. *(Shrubby two-edged ſtalk, and flowers having three ſtyles.)* Native of England, &c. in woods.

3. Hypericum *canarienſe.* Canary St. John's Wort. *(Three ſtyles, obtuſe cups, and ſtamina longer than the flower.)*

4. Hypericum *Olympicum.* Olympian Eaſtern St. John's Wort. *(Three ſtyles, acute cups, and ſtamina ſhorter than the flower.)*

5. Hypericum *Kalmianum.* Kalmian Roſemary-leaved Virginia St. John's Wort. *(Five ſtyles, and narrow ſpear-ſhaped leaves.)*

They are all proper furniture for embelliſhing the ſhrubbery, and will flower profuſely in numerous yellow cluſters, from the ends of the branches, two or three months in ſummer, appearing conſpicuous, and ſingular in their many polyadelphous ſtamina.

They propagate plenteouſly, both by root-ſuckers, and by ſlipping or dividing the roots; alſo by ſeed ſown in autumn or ſpring, in light earth, an inch deep.

J. JAS-

J.

JASMINUM, JASMINE-TREE. Of the claſs and order *Diandria monogynia*.

The hardy Jaſmines are deciduous flowering-ſhrubs, with long ſlender ſhoots and branches of flexuoſe trailing growth, with ſmall pinnated, trifoliate, and ſimple leaves, and numerous ſmall white and yellow, long, tubulous, fragrant flowers in ſmall bunches, having monophyllous five-parted cups, a long tubular corolla, five-parted above, two ſtamina, and one ſtyle, ſucceeded by a two-ſeeded berry.

They rarely produce ſeed in England, the Common Jaſmine particularly.

The ſpecies are,

1 JASMINUM *officinale*. Common White Indian Jaſmine. *(Pinnated oppoſite leaves.)*

Varieties.

Gold-ſtriped-leaved.

Silver-ſtriped-leaved.

2. JASMINUM *fruticans*. Shrubby Yellow Jaſmine. *(Angular branches, and trifoliate and ſimple alternate leaves.)*

3. JASMINUM *humile*. Dwarf Italian Yellow Jaſmine. *(Angular branches, trifoliate and pinnated alternate leaves.)*

They all produce their flowers on the young ſhoots of the year, in June, July, and Auguſt. The Common white ſort is the moſt abundant, and diffuſes a moſt agreeable odour.

The Jaſmines are choice ornamental garden-plants, in their abundant fragrant flowers; but, having all long, ſlender, declining branches, making numerous long green ſhoots, they require to be planted againſt any wall, building, or fence, and their branches trained thereto, four or five inches aſunder, either in an erect or horizontal direction, as the ſpace admits. Continue them regularly trained, by pruning out the very redundant rambling and ſtraggling ſhoots of each year; keep the others cloſe to the wall all the ſummer; and in winter, retain occaſional ſtrong ſhoots, advancing below and above, in vacancies, ſhortening

ſhortening their long ſtraggling tops, and cutting out caſual old naked and decayed wood, to make room for the young: then nail the whole regularly at the above-mentioned diſtance.

Some perſons, however, only train up a proper ſupply of branches to the wall at firſt, afterwards clipping, with garden-ſhears, the redundant and projecting rampant ſhoots of the year, in ſummer, &c. but the beſt way is to keep the branches thin, by knife-pruning and regular training, as above, both in ſummer and winter.

But Jaſmines may alſo, for variety, be trained as ſtandard ſhrubs, with ſingle ſtems, a foot or two high, or more; their ſtraggling ſhoots being pruned pretty cloſe, to form a buſhy head.

In pruning Jaſmines in ſummer, you ſhould be careful not to cut the flowering-ſhoots ſo cloſe as to deſtroy the flowers thereon.

They are all propagated plenteouſly by layers and cuttings of the young ſhoots; ſometimes, alſo, by ſuckers from the root: all of which may be performed in autumn or ſpring; and they will form plants in one ſummer's growth.

ILEX, HOLLY-TREE. Of the claſs and order, *Tetrandria tetragynia.*

It compriſes a fine collection of beautiful ever-green bacciferous trees and ſhrubs, natives of England, America, &c. of great value both in ornamental and uſeful plantations. They are garniſhed with oblong, ſinuated, ſpinous, and ſawed leaves, and ſhort cluſters of ſmall monopetalous, four-parted, white flowers, with four ſtamina and four ſtyles; ſucceeded by cluſters of roundiſh quadrilocular, four-ſeeded berries, ripe for ſowing in autumn and winter.

The hardy ſpecies are,

1. ILEX *Aquifolium, (Aquifolium)* or Common Prickly Holly-Tree. *(Oblong, ſinuated, ſpinous-edged leaves.)* A native of England, &c.

Varieties.

Common Green Prickly-leaved Holly.

Sawed-leaved Green Holly.

Hedge-

Hedge-hog Prickly Holly. The leaves having their ſurfaces full of prickles.

Smooth, or *Spineleſs Holly.*

Narrow-leaved Holly.

Box-leaved Holly.

Red-berried Holly.

White-berried Holly.

Yellow-berried Holly.

Whitiſh-blotch-leaved Holly.

Yellow-blotch-leaved Holly.

White-ſtriped-leaved Holly.

Yellow-ſtriped-leaved Holly.

Cream-coloured leaved Holly.

Mottle-leaved Holly.

Copper coloured-leaved Holly.

White-leaved Holly.

Painted Lady Variegated-leaved Holly.

Silver-edged-leaved Holly.

Gold-edged leaved Holly.

There are many other accidental ſeminal varieties, commonly known by the names of the perſons who firſt raiſed them, or by various fanciful names, viz.

Bradley's Long-leaved Holly.

Blind's Cream Holly.

Bagſhot Holly.

Bradley's Yellow Holly.

Bridgman's Holly.

Fuller's Cream Holly.

Gray's Holly.

Glory of the Eaſt Holly.

Glory of the Weſt Holly.

Hertfordſhire White Holly.

Chimney-Sweeper's Holly.

Milk-maid's Holly, &c. &c.

2. ILEX *Caſſine.* Caſſine Holly of Carolina, or Dahoon Holly. *(Oval-lanceolate, ſawed leaves.)* A native of North-America.

Variety.

Narrow-leaved Dahoon Holly.

The Hollies are ſingularly-fine ever-greens. The Common Holly grows from fifteen or twenty, to thirty feet

feet high, or more; the Caſſine, from ten to twenty; generally all very branchy to the bottom; cloſely garniſhed with leaves the year round; and their bunches of red berries are very ornamental in winter. They ſhould be joined, principally, in the ever green collection; and alſo occaſionally diſperſed in the deciduous plantations, both the Common and Variegated kinds, to give a chearful appearance in winter: but the variegated ſorts are preferable for ornament. All the ſorts may be trained both as buſhy ſhrubs, and run up with clean ſtems, for low and high ſtandards. The Common Holly is alſo proper to arrange in the foreſt-tree plantation, to grow to timber, as it will attain a goodly ſtature and ſubſtance, ſingularly valuable in many employments.

The Holly is likewiſe in univerſal repute for hedges, making a moſt beautiful ever-green hedge, ſerving at once as an ornament, and an effectual impenetrable fence againſt the inroads of men and beaſts.

It was alſo formerly in great requeſt to train into various fancy-figures, ſuch as pyramids, globes, pedeſtals, arcades, porticoes, galleries, and other rural architectural devices: a practice now almoſt entirely loſt in the Engliſh gardens.

The propagation of Hollies is by ſeed for the common green kinds, &c. and the Dahoon; but the different variegated ſorts, and the other curious varieties, are continued, principally, only by budding or grafting them upon ſeedling ſtocks of the Common Holly.

But the Common Green Holly ſhould be raiſed in plenty from ſeed, either as rough buſhy plants for the ſhrubbery, or as ſtandards, and for hedges, &c. for common uſe. Let, therefore, the berries be gathered in November, and either ſown at once in nurſery-beds, &c. an inch deep; or, as the ſeed is of a hard bony kind, remaining a year in the ground before it vegetates, you may, previouſly to the ſowing, bury them in a heap in a pit, or in large pots, plunged half a foot under ground, in a dry place, for a twelve-month, to prepare for germination; then take them up, and ſow them either bedded in and covered an inch with earth, or in drills of the ſame depth. Thoſe ſown at once from the trees, will not come up 'till the

the ſecond ſpring; but thoſe that have been buried a year, will riſe moſtly the following.

When the ſeedling plants are one or two years old, plant them out, ſome in nurſery-rows, to train for the purpoſes intended: others, deſigned as hedge-plants, may be planted out, where the hedge is intended, either in ſingle or double rows, as explained for the Hawthorn hedge. See *Cratægus*.

Or, when deſigned for hedges, you may, inſtead of ſets or young plants, ſow the ſeed at once in the place where the hedge is intended, either in a ſingle or double row, in drills an inch deep; and, if in double rows, have the rows a foot aſunder.

A Holly hedge is admirably adapted both for ornament, and interior fences to ſhelter tender plants againſt cold; and alſo for outward fences, for which purpoſe they are ſingularly effectual, as well as beautiful. Obſerve the ſame method of raiſing, planting, and training, as directed for the Hawthorn under the genus *Cratægus*. You may train them from four, five, or ſix, to ten or fifteen feet high; taper them up thin at the top, and clip them once or twice every ſummer, (never in winter) keeping them within half a yard, or two feet width at top, even the low hedges; but lofty hedges as thin at top as poſſible.

The grafting, or budding, is neceſſary to continue the Variegated and other varieties of the Common Holly, &c. for they will not come the ſame from the ſeed, but by inſerting ſhoots and buds of the deſirable kinds into ſtocks of the Common Holly, raiſed from ſeed to the ſize of a finger, or a little more or leſs. The grafting is performed in the ſpring, generally by whip-grafting for ſmall ſtocks, and ſlit-grafting for larger; and the budding, in July or Auguſt, in the common method.

ITEA, Itea. Of the claſs and order *Pentandria monogynia*.

It is an American deciduous flowering-ſhrub, of four or five feet growth, with ſpear-ſhaped alternate leaves, and the young ſhoots terminated by ſpikes of very ornamental white flowers, having five-parted cups, five petals, five ſtamina, and a permanent ſtyle, terminating the oval ſeed-capſule.

The

The ſpecies is

ITEA *Virginica*, Virginian *Itea*.

This ſhrub has ſingular merit in the ſhrubbery, for its floriferous appearance; and is eaſily raiſed from layers, cuttings, and ſuckers, in autumn or ſpring; alſo by ſeeds, which ſometimes remain in the ground till the ſecond ſpring.

IVA, FALSE JESUIT'S-BARK TREE. Of the claſs and order *Monoecia pentandria*.

This is a large deciduous American ſhrub for variety, garniſhed with ſpear-ſhaped ſawed leaves, and compound male and female purple flowers in cluſters, having a roundiſh general cup, containing many florets, forming a compound corolla, compoſed of funnel-ſhaped males and females without petals, five ſtamina, two hair-like ſtyles, and naked ſeeds in the calyx.

The ſpecies is

IVA *fruteſcens*. Shrubby American *Iva*, or Baſtard Jeſuit's-Bark Tree.

It is proper for the ſhrubbery, and propagates freely by layers and cuttings of the young wood.

JUGLANS, WALNUT-TREE. Of the claſs and order *Monoecia polyandria*.

The Walnuts are conſiderable deciduous fruit and foreſt-trees, garniſhed with large winged leaves, of from two or three, to five, ſix, or ſeven pairs of large, diſtinct, oblong lobes, terminated by an odd one; and male and female flowers, ſeparated; compriſing the males in oblong, cylindric, ſcaly catkins, each ſcale forming a cup to one floret, the females in cloſe-placed cluſters, in four-parted cups; a ſix-parted plane corolla in the males, and a four-parted one in the female cluſters; many ſtamina in the males, and in the females an oval germen, ſupporting two ſtyles; which are ſucceeded by a large, oval, green fruit in cluſters, containing a roundiſh, furrowed, hard-ſhelled fruit, having a four-lobed eatable kernel, ripe in September and October.

The ſpecies are,

1. JUGLANS *regia*. Common Walnut-Tree. *(Leaves having five or ſeven oval, ſerrated, ſmooth lobes.)*

Varieties of the fruit.

Early Oval Walnut.

Round

Round Walnut.
Large Walnut.
Double Walnut.
Late Walnut.
Tender-ſhelled Walnut.
Hard ſhelled Walnut.

2. JUGLANS *nigra*. Black Virginia Walnut-Tree. *(Leaves compoſed of fifteen ſpear-ſhaped, ſawed lobes, the exterior one the ſmalleſt.)*

The varieties are,

Round-fruited.
Oblong-fruited, with deeply-furrowed ſhells.

3. JUGLANS *alba*. White Virginia Walnut, or Hickery-Nut. *(Leaves compoſed of ſeven ſpear-ſhaped ſawed lobes, of which the extreme one is the largeſt, and ſits cloſe; and ſmooth whitiſh-ſhelled fruit.)*

The varieties are,

Smooth-barked White Virginia Walnut-Tree.
Rough or Shag-barked White Virginia Walnut-Tree.
Larger-fruited.
Small-fruited.
Oval-fruited.

4. JUGLANS *cinerea*. Cinereous American Walnut. *(Leaves compoſed of eleven ſpear-ſhaped lobes.)*

Moſt of theſe trees are of large and vaſtly-ſpreading growth. The Common and Black Virginia Walnut grows fifty or ſixty feet high; the others, thirty or forty; and moſt of the ſorts have widely-branching heads, furniſhed with large compound leaves from May till October, and produce their flowers on the young laſt year's wood, appearing in April and May, and ſucceeded by the fruit in June, which in July and Auguſt is fit to gather green to pickle, the Common Walnut particularly; and attains its full ripeneſs towards the latter end of September, and in October. Thoſe of the firſt ſpecies, in all its varieties, are largeſt and beſt-flavoured; the others are ſmaller, with very hard, thick ſhells, and but ſmall kernels: ſo that the *Juglans regia* is the proper ſort to cultivate as a fruit-tree, and as ſuch ſhould always be trained in full ſtandards.

But Walnut-trees in general are proper to arrange in all large plantations, for uſe, ornament, and obſervation, ha-

ving great merit when diſpoſed in avenues, groves, clumps, and for detached ſtandards: and they ſhould never be omitted in foreſt-tree collections, to be trained as large ſtandards for timber-trees. They delight in loamy ſoils, but will alſo proſper in any common earth, and require no particular ſituation or expoſure.

The Common Walnut, conſidered as a fruit-tree, is proper to arrange in orchards, eſpecially towards the boundary, and in any out-grounds, hedge-rows, fields, parks, paddocks, &c. being trained as ſtandards, with ſix or ſeven feet ſtems, and planted forty or fifty feet aſunder. Permit them to branch out above all around, and aſpire in height according to their natural growth: they will require hardly any pruning, except in their early ſtate, juſt to reform any caſual irregularity in the head, in order to ſet it off with a handſome ſhape.

Walnut-trees begin to bear at eight or ten years old. In their young growth the fruit is eaſily gathered by hand: but in large trees, with widely-extended boughs, it is beat down with long poles; then depoſited in heaps till the outer green huſks will readily ſeparate from the nuts, which ſhould then be carried into a dry room, and covered cloſely with ſtraw, &c. to defend them from the air, or be preſerved in dry ſand, to be uſed as wanted.

The ſeaſon for planting all the ſorts of Walnut-trees, is any time after the fall of the leaf, in October or November, till March.

Propagation.—All the ſpecies are eaſily and plenteouſly raiſed from the nuts, which, being preſerved in ſand till February, ſhould then be planted in drills two or three inches deep. They will come up the ſame year; and the plants, when one or two years old, ſhould be ſet out in the nurſery, in yard-wide rows, and there trained with ſingle ſtems, with the leading ſhoot entire; but any ſtrong lateral ſhoots ſhould be trimmed off, to form a clean ſtem of ſix or ſeven feet, and the trees then be permitted to branch out above into full heads, and planted out where wanted.

When you deſign them as fruit-trees, be careful to obtain nuts of the beſt varieties, large, with thin tender ſhells, for ſowing; whereby you will have a greater chance of trees producing good fruit in return.

In cultivating Walnuts for timber-trees, to form woods, the

the nuts are ſometimes ſown at once where the trees are to remain, in drills at wide diſtances. In ſuch caſes, you muſt gradually thin out the worſt plants, and let the moſt promiſing remain.

JUNIPERUS, JUNIPER-TREE, CEDARS, and SAVIN. Of the claſs and order *Dioecia monadelphia.*

The *Juniperus* compriſes a fine collection of eminent, ſmall-leaved, ever-green, berry-bearing ſhrub and tree kinds, for hardy ornamental plantations, &c. moſtly very branchy quite from the ground upwards, and of a pyramidal or conic growth, very cloſely garniſhed with narrow, minute, awl-ſhaped, and obtuſe, ever-green leaves the year round, placed in ſome by threes and fours, and *imbricatim*, (lying over one another like fiſh-ſcales;) with ſmall male and female flowers on ſeparate trees; the males compriſed in conical amentums, without petals, and three united ſtamina; the females in three-pointed cups, having three petals, a germen ſupporting three ſtyles, ſucceeded by three-ſeeded berries, ripe in autumn and winter; but, in England, moſt abundantly in the Common Juniper.

The ſpecies may be divided into Juniper kinds, Cedars, and Savin kinds; all of which are of the genus *Juniperus.*

JUNIPER KINDS.

1. JUNIPERUS *communis.* Common Juniper Shrub. *(Ternate, ſpreading, ſharp-pointed leaves, and long berries.)* A native of England, &c.

Varieties.

Common Shrubby Juniper.

(Juniperus Suecia) *Swediſh, or Tree-like Juniper.*

2. JUNIPERUS *Oxycedrus, (Oxycedrus)* or Greater Spaniſh Juniper. *(Ternate and quaternate, ſharp-pointed, ſpreading leaves, and ſhort berries.)*

CEDAR KINDS.

3. JUNIPERUS *Virginiana.* Virginia Red Cedar. *(Ternate leaves, the young ones imbricated, the older ones ſpreading.)*

4. JUNIPERUS *thurifera.* Thuriferous, or Spaniſh Cedar. *(Quadrifarious, or four-rowed, imbricated, acute leaves.)*

5. JUNIPERUS *lycia.* Lycian large-berried Cedar. *(Ternate oval leaves, every where imbricated.)*

6. JUNIPERUS *phœnicia.* Phœnician Yellow-berried Cedar. *(Ternate, faintly imbricated, obtuſe leaves.)*

7. JUNIPERUS *bermudiana.* Bermudian Cedar. *(Ternate lower leaves, the upper ones in pairs, decurrent, awl-ſhaped, and ſpreading.)*

SAVIN KINDS.

8. JUNIPERUS *Sabina.* *(Sabina)* or Savin Shrub. *(Oppoſite, erect, decurrent leaves.)*

Varieties.

Dwarf Spreading Savin.

Variegated Dwarf Savin.

(Juniperus Luſitanica) *Upright Larger Portugal Savin.*

Theſe eight ſpecies of *Juniperus* exhibit various degrees of growth, from three or four, to forty feet ſtature, viz. The Juniper kinds obtain from three or four, to ten or fifteen feet; the Cedars, from fifteen or twenty, to thirty or forty; and the Savins, from two or three, to eight or ten feet in height. They are all of the ever-green tribe, with their minute leaves placed numerouſly by threes and fours, (ternate and quadrifarious) round the branches; ſome pointing outwards, others being imbricated, or placed one over another, and adorning the plants all the year: but the flowers make little appearance, and are ſucceeded by berries; in England, the moſt plentifully in the Common Juniper, and Portugal Savin.

Moſt of the ſpecies are of a reſinous nature, and impart an agreeable aromatic fragrance. They are all choice ever-green furniture to arrange in the principal ſhrubberies, and all other ornamental departments of planting. Diſpoſe them as buſhy ſtandards, according to their height, branchy to the bottom; placing the lower ones towards the front, and the taller behind; ſome, alſo, as ſingle ſtandards, on open ſpaces of graſs ground; and you may likewiſe employ ſome occaſionally in ornamental hedges, and for detached trained figures.

The larger Cedar kinds you may alſo admit into the ever-green foreſt-tree collections, pruning up their lower branches gradually,

Propagation, &c. All the ſorts are propagated by ſeeds, and occaſionally by layers, more particularly the Savin kinds.

kinds. Sow the ſeed in autumn, or as ſoon as obtained, in beds of light earth, and cover them in with fine mold, half an inch deep. Some will come up the firſt year; others, not till the ſecond ſpring. Give them proper weeding and watering all the ſummer; and the young plants, in the firſt or ſecond autumn or ſpring, ſhould be bedded out in rows ſix inches aſunder; and, having two years growth, ſhould be planted in wide nurſery rows, to train for the purpoſes intended.——But if the varieties of the Savins, &c. are propagated by layers and cuttings of the young ſhoots in ſpring, it will more certainly continue the varieties diſtinct.

K.

KALMIA, KALMIA. Of the claſs and order *Decandria monogynia.*

The *Kalmias* are beautiful American ever-green ſhrubs, with oval and ſpear-ſhaped leaves, and ornamental red flowers in corymbous cluſters, compoſed of five-parted permanent cups, a cylindric tubular corolla, divided above in five ſegments, ten filaments, one ſtyle, and a roundiſh five-celled capſule with ſmall ſeeds.

The ſpecies are,

1. KALMIA *latifolia*, Broad-leaved Maryland *Kalmia.* *(Oval leaves, and the corymbus of flowers terminating the branches.)*

2. KALMIA *anguſtifolia*, Narrow-leaved Penſylvanian *Kalmia. (Spear-ſhaped leaves, and the corymbus of flowers at the ſides of the branches.)*

Let theſe be employed to embelliſh the beſt ſhrubbery: they grow four or five feet high, flower ornamentally in June and July, and may be propagated by ſuckers, layers, and by ſeed in the ſpring; the ſeedling plants being ſheltered from froſt the firſt winter, and then planted out in the nurſery.

L.

LAVANDULA, LAVENDER. Of the claſs and order *Didynamia gymnoſpermia.*

They are under-ſhrubby buſhy aromatics, for the kitchen-garden and ſhrubbery; garniſhed with ſmall, narrow, ſpear-ſhaped, whitiſh and hoary leaves; and long erect ſpikes of ſmall blue, purple, and white flowers, having one-leaved cups, a ſmall ringent corolla, tubulous below, and divided above, two ſhort and two long ſtamina, a four-parted germen, a ſlender ſtyle, and four naked ſeeds.

The ſpecies are,

1. LAVANDULA *Spica, (Spica)* Common Long-ſpiked Lavender. *(Spear-ſhaped entire leaves, and naked ſpikes.)*

Varieties.

Narrow-leaved Lavender.
Broad-leaved Lavender.
Dwarf Lavender.
Blue-ſpiked Lavender.
White-ſpiked Lavender.

2. LAVANDULA *Stœchas, (Stœchas)* or French Lavender. *(Linear, ſpear-ſhaped, hoary leaves, and buſhy ſpikes.)*

They are all of ſlender growth, two or three feet high, having the branches terminated, in June, July, and Auguſt, by the ſpikes of flowers, which impart a fine fragrance; and, in the firſt ſort particularly, are gathered for various domeſtic purpoſes.

Plant ſome of both ſorts in the kitchen-garden for uſe, and in the ſhrubbery for variety; but cultivate moſt of the Common Blue-ſpiked Lavender, as a kitchen-garden plant, arranged either as an edging, or in rows two or three feet aſunder, to afford a crop of flowers every ſummer. Alſo diſpoſe ſome of each ſort ſingly in the front of the ſhrubbery compartment.

Propagate them by ſmall ſlips, and cuttings of the young ſhoots, planted in March, April, and May, in a ſhady border; alſo, by layers in ſpring and ſummer; likewiſe, the *Stœchas* by ſeed in the ſpring.

LAVATERA,

LAVATERA, Tree-Mallow. Of the claſs and order *Monadelphia polyandria.*

It is a ſhrubby-ſtalked upright plant, with a ſtrong ſingle ſtem, of ſix or eight feet growth; broad ſeven-angled downy leaves, and cluſters of large purple flowers, with five petals, numerous united ſtamina, one ſtyle, and heads of ſeed-capſules.

The hardy ſpecies is,

Lavatera *arborea*, Tree-Mallow. *(Seven-angled plaited downy leaves, and cluſtered peduncles, each having one flower.)*

This plant is of a nature ſomewhat between a ſhrubby and herbaceous kind: the ſtem ſometimes decays in a year or two; but, if planted in dry or rubbiſh ſoils, in the ſhrubbery, it may continue ſeveral years, and effect a ſingular variety.

Propagate it by ſeed ſown in the ſpring, half an inch deep, for tranſplantation; or in patches, in the places where the plants are to remain.

LAURUS, Bay-Tree. Of the claſs and order *Enneandria monogynia.*

The *Laurus* compriſes beautiful ever-green and deciduous trees, ornamented with largiſh, ſpear-ſhaped and oblong, ſimple, entire, and three-lobed leaves; and ſmall yelloviſh and whitiſh flowers, having no cups, ſix oval petals, nine ſtamina, an oval germen with one ſtyle, ſucceeded by an oval, one-ſeeded red berry, ripe in autumn and winter, plentifully in the Common Bay, for ſowing.

The hardy ſpecies are, one ever-green, and two deciduous kinds, viz.

1. Laurus *nobilis*, Noble, or Common Ever-green Bay-Tree, *(Spear-ſhaped, veined, ever-green leaves)*, diffuſing a fine aromatic odour.

Varieties.

Broad-leaved Bay-tree.
Narrow-leaved Bay-tree.
Waved-leaved Bay-tree.
Variegated-leaved Bay-tree.
Double-flowered Bay-tree.

2. Laurus *Benzoin*, *(Benzoin)* Benjamin-Tree, or Virginia Deciduous Bay. *(Oval, acute, unveined, entire leaves.)*

3. Lau-

3. LAURUS *Saſſafras*, *(Saſſafras)* Saſſafras-Tree, or Three-lobed Virginia Deciduous Laurus. *(Leaves, ſome entire, and ſome cut into three lobes.)*

Theſe are all of the moderate tree kind. The *Laurus nobilis* is of the greateſt height, obtaining twenty or thirty feet growth when trained in ſingle ſtandards; but it often riſes with ſeveral ſtems, in a ſhrub-like manner: and the others attain from ten, to fifteen or twenty feet height. They are moſtly of an aromatic and odoriferous quality; and have all great merit to aſſiſt in the various ornamental plantations of the pleaſure-ground, trained in ſtandards, ſome in the tree way, with ſingle ſtems and full heads, and others as buſhy ſhrubs. The Common Bay is alſo in reputation for forming handſome ever-green hedges, either regularly clipped, or left to grow up rough. This fine ever-green may alſo be introduced in the foreſt-tree plantation; where gradually trim up the lower boughs, and it will ſhoot up faſt, and make a fine appearance.

All the ſorts may be planted, where required, in October, November, or in February, March, &c.

Theſe trees are propagated by ſeed, ſuckers, and layers. Sow the berries, either in autumn, or early in ſpring, in drills, or bedded in evenly, an inch deep, in beds of light earth; and, when a year or two old, plant out the ſeedling plants in the nurſery, and train them to the proper ſize. Suckers, riſing abundantly from the root of the Common Bay, may be tranſplanted with roots in autumn or ſpring; and layers of the young ſhoots, ſlit-layed, will root in one year.

LEDUM, MARSH-CISTUS, or WILD ROSEMARY. Of the claſs and order *Decandria monogynia*.

They are low, under-ſhrubby, bog plants, with very narrow leaves, and ſmall corymbous bunches of reddiſh flowers, of five petals, ten ſtamina, one ſtyle, and roundiſh capſules with many ſeeds.

The ſpecies are,

1. LEDUM *paluſtre*, Common Marſh-Ciſtus. *(Narrow leaves, like roſemary, hairy underneath.)*

Variety.

Small Marſh-Ciſtus.

2. LE-

2. LEDUM *thymæfolium*, Thyme-leaved Marſh-Ciſtus.

Variety.

Variegated-leaved.

Plant them in a moiſt part of the ſhrubbery; and propagate them by off-ſet root-ſuckers, layers, and by ſeed, in a ſhady moiſt border.

LIGUSTRUM, PRIVET. Of the claſs and order *Diandria monogynia.*

Privets are noted deciduous and ever-green upright buſhy ſhrubs, of eight or ten feet growth, branching erectly and copiouſly quite from the bottom, garniſhed with ſmall ovaliſh-oblong oppoſite leaves, and numerous ſmall erect ſpikes of white flowers, having four-parted cups, a funnel-ſhaped quadrifid corolla, two ſtamina, and one ſtyle, and ſucceeded by cluſters of four-ſeeded black berries, ripe in autumn and winter for ſowing.

The ſpecies are,

1. LIGUSTRUM *vulgare*, Common Deciduous Privet. *(Oval-ſpear-ſhaped, obtuſe leaves.)* Grows wild in our hedges in England, &c.

Varieties.

Gold-ſtriped-leaved.

Silver-ſtriped-leaved.

2. LIGUSTRUM *italicum*, Italian Ever-green Privet. *(Spear-ſhaped acute leaves.)*

Introduce them in the common ſhrubberies, and other hardy plantations, for variety. Train them with ſingle ſtems, and round heads. They are proper alſo for forming neat cloſe garden-hedges, and to plant, in a fanned manner, againſt naked unſightly walls, &c. and will ſucceed any where, even in cloſe places, in cities and towns.

Propagate them by ſeed, ſuckers, layers, and cuttings. Sow the berries an inch deep, in autumn; in the ſame ſeaſon, or in ſpring, plant off ſuckers from the root; and make layers and cuttings of the young wood: all of which will grow freely.

LIQUIDAMBAR, STORAX, or SWEET-GUM-TREE. Of the claſs and order *Monoecia polyandria.*

They are fine ornamental deciduous trees, of ſtrait handſome growth, decorated with elegant palmated, angular, and ob-

oblong leaves, exſuding a gummy fragrant ſubſtance; and with male and female flowers, ſeparate, in conic and globular amentums, having four-leaved and double involucrums, with each floret a bell-ſhaped cup, but no petals, numerous ſtamina, and two ſtyles, ſucceeded by a globular body of many capſules, filled with oblong ſeeds.

The ſpecies are,

1. LIQUIDAMBAR *Styraciflua*, *(Styraciflua)* Storax-Tree of Virginia, or Common Liquidambar. *(Palmated angular leaves.)*

2. LIQUIDAMBAR *aſplenifolium*, Spleenwort-leaved American Liquidambar. *(Oblong, ſinuated, alternate leaves.)*

They grow twenty or thirty feet high, and are in great repute for ornamental plantations, and to plant in clumps, and ſingly, in parks, lawns, &c. They are propagated by ſeed, and by layers. Sow the ſeed in the ſpring, half an inch deep, in a bed of light earth, giving protection from ſevere froſt, and in a year or two plant them out in the nurſery, to train to proper ſize. Layers of the lower young ſhoots, in autumn, will be rooted in a year.

LIRIODENDRON, (LILY-TREE,) commonly called TULIP-TREE. Of the claſs and order *Polyandria polygynia*.

It is a noble deciduous tree, of America, adorned with fine, large, ſingularly-lobated, ſimple leaves, having the middle lobe truncated, as if cut off; and many bell-ſhaped liliaceous flowers, reſembling the form of a lily, or tulip, having ſix petals in two ſeries, numerous ſtamina and germina, ſucceeded by a conic body of ſeeds, placed *imbricatim*.

The ſpecies is,

LIRIODENDRON *Tulipifera*, *(Tulipifera)* or Common Tulip-Tree.

This fine tree is a lofty grower, and highly deſerves a place in all deciduous plantations, for ornament and variety, as likewiſe to exhibit in avenues, and ſingly in parks, lawns, and other open ſpaces; but it rarely flowers till arrived at ſome conſiderable growth.

Propagate it by ſeed ſown in the ſpring, in a bed of light

light earth; tranſplant the ſeedling plants into the nurſery, and train them with ſingle tall ſtems for ſtandards.

LONICERA, HONEYSUCKLE. Of the claſs and order *Pentandria monogynia*.

The Honeyſuckle comprehends many eminent, very floriferous, ſhrubby climbers, and upright growers, moſtly deciduous, and ſome ever-greens; garniſhed with oblong-oval and heart-ſhaped ſimple leaves, moſtly in pairs oppoſite, and ſome ſingly, or connected at the baſe, and perforated by the ſtalk or branch, and with numerous, tubular, five-parted, red, white, and yellow ornamental flowers, of remarkable fragrance, having ſmall five-parted cups, a monopetalous corolla, tubulous below, and divided above into five reflexed ſegments; five ſtamina, a roundiſh germen, with one ſtyle, ſucceeded by roundiſh, bilocular, red, blue, or black berries, ſome joining at the baſe, and ſome diſtinct or ſingle.

The ſpecies may be divided into two tribes, viz. Volubilate Climbers, and Upright Growers.

VOLUBILATE, *or* TWINING CLIMBING KINDS, *with flowers in cluſters and whirls, ſucceeded by heads of berries.*

Theſe have moſtly long weak branches, which either climb volubilately round any adjacent ſupport, as trees, buſhes, ſtakes, &c. or otherwiſe trail on the ground; ſo that they ſhould have ſupport, or be trained againſt walls.

1. LONICERA *Peryclimenum, (Peryclimenum)* or Common Climbing Honeyſuckle. *(Oval oblong oppoſite leaves, on diſtinct foot-ſtalks, and oval imbricated heads of flowers terminating the branches in July, Auguſt, &c.)*

Varieties.

(Lonicera vulgare) *Common Climbing White Engliſh Honeyſuckle, or Woodbine of the Woods and Hedges.*

Wild Red Honeyſuckle.

Oak-leaved Wild Honeyſuckle.

Striped-leaved Wild Honeyſuckle.

Variegated Oak-leaved Wild Honeyſuckle.

(Lonicera Germanica) *German, or Large Dutch Red Honeyſuckle.*

Long-blowing Dutch Honeyſuckle.

Late-

Late-flowering German Honeyſuckle.
Ever-green German Honeyſuckle.

2. LONICERA *Caprifolium*, *(Caprifolium)* or Early Italian Honeyſuckle. *(Oval cloſe-ſitting leaves, the upper ones connate at the baſe, and perforated by the branch, which is terminated by whirled cluſters of flowers in May and June.)*

Varieties.

White-flowered Early Italian Honeyſuckle.
Red flowered.
Later Red-flowered.
Yellow-flowered.
Ever-green Late Red-flowered.

3. LONICERA *ſempervirens*, Ever-green Scarlet Trumpet Honeyſuckle of Virginia. *(Oblong-oval, cloſe-ſitting, ever-green leaves, with the upper ones connate, and perforated by the branch, and the branches terminated by verticillate cluſters of long unreflexed deep-ſcarlet flowers.)*

MORE-UPRIGHT GROWERS, *with flowers by pairs on each foot-ſtalk, ſucceeded by two berries*

4. LONICERA *Xyloſteum*, *(Xyloſteum)* or Fly Honeyſuckle. *(Oblong-oval, downy, oppoſite, entire leaves, and diſtinct berries.)*

5. LONICERA *alpigena*, Alpine Red-berried Honeyſuckle. *(Oval, heart-ſhaped, acute, oppoſite, entire leaves, and the berries joined.)*

6. LONICERA *nigra*, Black-berried Honeyſuckle. *(Oblong, elliptical, oppoſite, entire leaves, and diſtinct berries.)*

7. LONICERA *cærulea*, Blue-berried Helvetian Honeyſuckle. *(Oblong ſpear-ſhaped leaves, and berries joined together.)*

8. LONICERA *tartarica*, Tartarian Red-berried Honeyſuckle. *(Heart-ſhaped obtuſe leaves, and the berries diſtinct.)*

UPRIGHT GROWERS, *with many flowers on each peduncle.*

9. LONICERA *Symphoricarpos*, *(Symphoricarpos)* or Shrubby St. Peter's Wort, or Virginia Upright Honeyſuckle. *(Oval, hairy, oppoſite leaves, having foot-ſtalks; and heads of greeniſh flowers laterally round the branches.)*

10. Lo-

10. LONICERA *Diervilla*, *(Diervilla)* or Dwarf Yellow Acadian Honeyſuckle. *(Oblong, heart-ſhaped, ſerrated, oppoſite leaves, and yellow flowers terminating the branches in cluſters.)*

All the ſpecies of *Lonicera* demand culture, for ornament and variety, in the different ſhrubbery compartments, and borders of the pleaſure-ground, &c. for their numerous fine fragrant flowers, appearing in the different ſpecies, from May until September. The climbers produce the largeſt, moſt elegant, and odoriferous flowers; but the others effect alſo a very fine diverſity.

Generally plant the climbers, either to have the ſupport of walls, or pales; or to aſcend over arbours; or to twine round poles, ſtakes, or ſtems of trees; or to run over ſhrubs, buſhes, or hedges, &c.

But the upright kinds may be employed as detached ſtandards, and trained to upright ſtems, one, two, or three feet high, and with buſhy heads, by trimming the long rambling ſhoots.

The climbers alſo may be formed into low, buſhy, ſtandard ſhrubs, aſſiſted by the ſupport of ſtakes, and by pruning the long ſhoots of the head.

They are all propagated with facility, and in abundance, by layers and cuttings; alſo ſome ſorts by ſuckers from the roots. Make layers of the young ſhoots in autumn, winter, or ſpring, ſhortening their long tops. Alſo for cuttings chuſe ſtrong young ſhoots of laſt ſummer, cut from ſix or eight, to ten or twelve inches long, and plant them in a ſhady border. The *Lonicera Diervilla* furniſhes plenty of root-ſuckers; which plant off in autumn, &c.

Likewiſe, by the ſeed or berries ſown an inch deep in autumn, many young plants will be obtained.

LOTUS, BIRD'S-FOOT TREFOIL. Of the claſs and order *Diadelphia decandria*.

They are low, under-ſhrubby, South-European plants, with trifoliate leaves, and heads of papilionaceous flowers, with ten diadelphous ſtamina, one ſtyle, and ſmall cylindric ſeed-pods.

The ſpecies are,

1. LOTUS *hirſutus*, Hairy Upright Bird's-foot *Lotus*. *(Hairy, erect ſtalks and heads of flowers, and egg-ſhaped pods.)*

2. LOTUS *rectus*, Upright, Erect-podded Bird's-foot Trefoil. *(Upright ſtems, globular flower-heads, and erect ſmooth pods.)*

Plant them in a dry, warm part of the ſhrubbery; and propagate them by ſeed, in March or April, in a warm border; alſo by cuttings of the young ſhoots, in ſpring and ſummer, in the ſhade.

LYCIUM, Box-THORN. Of the claſs and order *Pentandria monogynia.*

They are Aſiatic and African ſhrubs, of upright and trailing growth, defended with thorns, and garniſhed with ſmall oblong leaves, and funnel-ſhaped, five-parted purple and white flowers, with five ſtamina, one ſtyle, and roundiſh many-ſeeded berries.

The ſpecies is,

LYCIUM *barbarum*, Barbary Box-Thorn. *(Thick lanceolate or ſpear-ſhaped leaves.)*

Varieties.

Common Upright African Box-Thorn (Tender.)
Chineſe Broad-leaved Trailing Box-Thorn.
Narrow-leaved Trailing Box-Thorn.

They are all rather tender, particularly the upright variety: the others are hardier, and will ſucceed in a warm part of the ſhrubbery, or planted againſt a wall for ſupport of their trailing branches. They are propagated by layers and cuttings, and by ſeed in a warm border, or in pots in a hot-bed.

M.

MAGNOLIA, *(Magnolia)* LAUREL-LEAVED TULIP-TREE. Of the claſs and order *Polyandria polygynia.*

The *Magnolias* are ſingularly magnificent ever-green and deciduous exotic trees of America, for ornament; decorated with beautiful, luxuriant, oblong, ſhining, ſimple leaves, in ſome reſembling thoſe of Laurel, but larger; and large, ornamental, fragrant, nine-leaved white flowers, having three-leaved cups, nine oblong, concave petals, numerous ſtamina, germina and ſtyles; ſucceeded by large, oval, conic heads of roundiſh-cluſtered capſules, diſcharging the ſeeds ſuſpended by ſlender threads, not ripening in England.

There

There is one moſt elegant ever-green, and three leſſer deciduous trees, viz.

1. MAGNOLIA *grandiflora.* Grandiflorous ever-green *Magnolia*, or Common Laurel-leaved Tulip-tree. *(Very large, ſpear-ſhaped, thick, ſhining leaves.)* An admirable beautiful tree, in its ample, and ſingularly elegant foliage.

Varieties.

Broad-leaved ever-green Magnolia.

Narrow-leaved Magnolia.

2. MAGNOLIA *acuminata*, Acuminate-leaved deciduous *Magnolia. (Oval-oblong, ſharp-pointed leaves.)*

3. MAGNOLIA *tripetala*, Umbrella-tree, or Umbrella-leaved Deciduous *Magnolia. (Large ſpear-ſhaped leaves, in rays like an umbrella, and dependent exterior petals.)* Singularly curious in the diſpoſition of its vaſt leaves, ſpreading horizontally round like an umbrella.

4. MAGNOLIA *glauca*, Glaucous-leaved ſmaller Deciduous *Magnolia. (Oval-oblong leaves, glaucous, or grey, or whitiſh, underneath.)*

They are all of the tree kind; but the *Magnolia grandiflora* is a tree of ſuperb and ſtupendous growth in America, its native ſoil, and the moſt beautiful of the ever-green tribe, growing ſeventy or eighty feet high; the deciduous kinds, from about fifteen to twenty and upwards: the firſt ſort having its moſt ample foliage continued the year round; the others only in ſummer; with the ſnowy, ſingular flowers terminating the ends of the branches in ſummer, on trees arrived to ſome conſiderable growth.

All the ſpecies are exceedingly deſirable ornaments for the pleaſure-ground, claiming admittance in all grand collections, diſpoſed in ſomewhat defended yet conſpicuous ſituations, where they will effect a moſt reſpectable variety.

But the Ever-green *Magnolia*, ſomewhat tender, ſhould in its minor growth be kept in pots, for moving under ſhelter of a frame or green-houſe in ſevere froſts, till it has obtained ſome tolerable ſize and ſtrength; then be tranſplanted in a warm part of the ſhrubbery, and have occaſional ſhelter, in hard winters, by an awning of mats ſupported on arched poles and rods.

Of the deciduous kinds, though of hardier growth, it is alſo eligible to have ſome in pots while young, to be ſheltered for two or three winters againſt hard froſts.

Propagate all the ſorts by ſeed, layers and cuttings.

Sow the ſeed in the ſpring, in large pots of light earth, half an inch deep; and either forward them a little in a moderate hot-bed, or plunge them in a frame, or under any warm fence; but place them in the ſhade in ſummer, and under ſhelter of a frame all winter; and when the plants are one or two years old, pot them out ſingly in the ſpring: then you may forward them a few weeks in a moderate bark-bed, giving them water in ſummer, and defending them from froſts in winter. When two or three feet high, they are fit for the ſhrubbery, &c.

Layers and cuttings of the young ſhoots in the ſpring will grow the ſame year; or you may have cuttings of the young ſhoots planted in pots, in March or April, and plunged in a bark-bed, which will promote their early rooting.

MENESPERMUM, Moon-Seed. Of the claſs and order *Dioecia dodecandria*.

This conſiſts of ſhrubby volubilate climbers of America, with roundiſh peltated, and heart-ſhaped lobated leaves; and looſe bunches of greeniſh flowers, of twelve oval petals, twelve ſtamina, two germina and ſtyles, ſucceeded by kidney-ſeeded berries.

The noted ſpecies are,

1. Menespermum *canadenſe*, Canada Round-leaved Moon-ſeed. *(Roundiſh heart-ſhaped, angulated leaves.)*

2. Menespermum *Virginianum*, Virginian Lobated-leaved Moon-ſeed. *(Heart-ſhaped, lobated leaves)*

Plant them as climbers, to twine round ſtems of trees, tall poles, &c. or over arbours; or train them againſt fences, &c. They may be propagated by layers, or by ſlipping the off-ſet ſhoots, or ſuckers from the root, and by ſeed ſown in the common ground in the ſpring.

MESPILUS, Medlar-Tree. Of the claſs and order *Icoſandria pentandria*.

They are of the fruit-tree and flowering-ſhrub kinds, moſtly deciduous, and one noted ever-green; garniſhed with ſpear-ſhaped, and oblong and oval leaves; and five-leaved flowers, ſingle, and in bunches from the ſides and ends of the branches; having one-leaved, five-parted cups, five roundiſh petals, twenty or more ſtamina, a round germen with

with five ſtyles, ſucceeded by a globular, umbilicated, eatable fruit, or berry, with five ſeeds. In ſome ſorts, the fruit attains the ſize of ſmall and middling apples and pears, as in the Common Medlar, &c. in others, like ſmall berries; the former being of the eatable kind, ripening in October; and after being gathered and laid in a room to become ſoft and tender, it proves an agreeable deſſert winter-fruit.

It compriſes one fruit-tree ſpecies, and ſeveral ſhrub kinds for variety.

Fruit-tree kind, with apple and pear-ſhaped fruit.

1. MESPILUS *germanica*, German or Dutch Medlar. *(Spear-ſhaped leaves, hoary underneath.)* It produces its flowers ſingly, along the ſides of the branches; and they are ſucceeded by large, round, rough, brown fruit.

Varieties.

Common Apple-ſhaped great Dutch Medlar.
Apple-ſhaped ſmaller Nottingham Medlar.
Pear-ſhaped Italian Medlar.

The two firſt varieties are for common uſe, of which the Dutch kind is conſiderably the largeſt, though the Nottingham Medlar is remarkable for being of a richer flavour.

Shrub kinds, with ſmaller berry-like purple and red fruit.

2. MESPILUS *arbutifolia*, Arbutus-leaved Virginia Medlar. *(Spear-ſhaped crenated leaves, downy underneath.)*

3. MESPILUS *Amalanchier. (Amalanchier.)* Hairy-ſtalked, Black-fruited, Auſtrian Meſpilus, called *Amalanchier. (Hairy ſtem, and oval ſawed leaves.)*

4. MESPILUS *canadenſis*, Canada Snowy Meſpilus. *(Oval-oblong, ſmooth leaves.)*

5. MESPILUS *Chamæ-Meſpilus*; *(Chamæ-Meſpilus)* or Dwarf Alpine Medlar. *(Oval, ſerrated, ſmooth leaves, and flowers in heads.)*

6. MESPILUS *Cotoneaſter*, *(Cotoneaſter.)* Baſtard Quince. *(Oval entire leaves.)*

7. MESPILUS *Pyracantha*, *(Pyracantha)* or Ever-green Thorny *Meſpilus*, commonly called *Pyracantha. (Oval ſpear-ſhaped, crenated leaves, the year round.)* It pro-

duces numerous cluſters of white flowers in ſummer, and red berries in winter, very ornamental.

The ſeveral ſpecies exhibit different degrees of growth. The Common Medlar grows fifteen or twenty feet high, branching irregularly; the other deciduous ſpecies, being of the ſhrub kind, obtain from about three or four to five or ſix feet ſtature; and the *Pyracantha*, or Ever-green *Meſpilus*, having long, ſlender, flexuoſe branches, will riſe, by ſupport of a wall, &c. ten or fifteen feet high. They all flower abundantly in ſummer; and the flowers are ſucceeded by plenteous fruits in autumn; ſome, of the apple and pear ſhape; others, like haw-berries; but thoſe of the firſt ſpecies only are conſidered as eatable fruit.

They are all uſeful in gardening; the Common Medlar, as a fruit-tree; which alſo, together with all the other ſpecies, is proper to join in the ſhrubbery collections, wherein they will increaſe the variety in a diſtinguiſhable manner. The *Pyracantha* has alſo particular merit for training conſpicuouſly againſt the fronts of buildings, walls, and other fences, appearing always green, and its numerous red berries being ſingularly ornamental in autumn and winter.

The Medlar, deſigned as a fruit-tree, demands culture in gardens and orchards, both as full and half ſtandards, with from three or four to ſix feet ſtems and full heads. Plant them at twenty feet diſtance, and permit their heads to branch out freely in their natural growth. Plant ſome alſo as dwarfs, with ſhort ſtems, to arrange in eſpaliers, at fifteen or twenty feet diſtance, and train their branches ſix inches aſunder, ſo as to extend horizontally, always at full length, as for Apples and Pears, which ſee.

Gather the Medlar fruit in October or November, and depoſit ſome in moiſt bran, others upon ſhelves, &c. to lie till they become ſoft and tender: they are then delicious to eat in winter.

The propagation of all the ſpecies is effected abundantly, and with eaſe, by ſeed, and by layers; alſo by grafting and budding, to continue the varieties of the Common Medlar, and render them ſooner fruitful. Sow the ſeed of the fruit, and in ſome the entire berries, in autumn, drilled or bedded in an inch and a half deep; they probably will not

not germinate till the ſecond ſpring. When the plants are a year old, plant out the largeſt in nurſery rows, to train for uſe. Layers of the young wood, in autumn or ſpring, root freely in one year. Grafting and budding being eligible principally for improving the Common Medlar, either operation ſhould be performed, with grafts or buds of the deſirable kinds, upon ſeedling Medlar Stocks, or any of the *Meſpilus* kind.

MORUS, MULBERRY-TREE. Of the claſs and order *Monoecia tetrandria.*

It compriſes large deciduous bacciferous fruit-trees, and others for variety in ornamental plantations. They are decorated with large roundiſh-heart-ſhaped, and oval and palmated leaves; and with male and female flowers apart; compriſing the males in long looſe catkins, and the females in round heads; with ſmall four-leaved ſucculent cups, no petals, four ſtamina in the males, two ſtyles in the females; and each cluſter of female calyxes becomes a large, oval, ſucculent, tuberculated eatable berry, with ſmall ſeeds in each tubercle.

The ſpecies are four; the firſt of which is the moſt famous as a fruit-tree, the others chiefly for variety.

1. MORUS *nigra*, Common Black-fruited Mulberry-Tree. *(Heart-ſhaped rough leaves.)* It produces abundance of large, oval, black berries, ripe in Auguſt and September, delicious and refreſhing to eat.

Variety.

Jagged-leaved Black-Mulberry.

2. MORUS *alba*, White Mulberry-Tree. *(Oblique heart-ſhaped, ſmooth-leaves.)*

3. MORUS *rubra*, Red Mulberry-Tree. *(Heart-ſhaped leaves, hairy underneath.)*

4. MORUS *papyrifera*, Papyriferous, or Paper Mulberry-Tree of Japan. *(Palmated leaves, and hiſpid fruit.)* The Chineſe make paper of its bark.

Theſe trees grow twenty or thirty feet high, or more, with conſiderably ſpreading heads, bearing fruit on the extremity of the young ſhoots, on ſhort robuſt ſpurs. The *Morus Nigra* is the moſt eligible for general culture as a fruit-tree; producing the largeſt, beſt-ripened, well-flavoured berries; though the White and Red kinds may alſo be admitted in the fruit-tree collection for variety.

Deſigned

Deſigned as fruit-trees, they ſhould principally be trained as ſtandards, with five, ſix, or ſeven feet ſtems, branching at top into full heads; and planted in a ſunny dry expoſure, at thirty or forty feet diſtance. A few trees may be ſufficient for private uſe. Permit them to branch out freely every way. They require no pruning, except juſt to reform any caſual low ſtraggler, or very irregular, or crowding branch. Some alſo may be trained as dwarfs, for wall and eſpalier-trees, with ſhort ſtems, half a foot or a foot high, and the branches trained, in a fanned manner, to the wall or eſpalier, ſix inches aſunder, and moſtly at full length, without ſhortening. Give them a ſummer and winter pruning; train in occaſional ſupplies of young, and retrench worn-out bearers, &c. as directed for Peaches: they will produce larger fruit, ripening a little before the ſtandards.

It is proper to plant ſome ſtandard Mulberries upon graſs-plats, or lawns, both for the greater convenience of gathering the fruit, and that, when the ripe berries fall from the trees, they may be gathered off the graſs clean for uſe.

But all the ſpecies may alſo be arranged in the pleaſurable plantation, to enlarge the variety.

The leaves of Mulberry are famous as the principal food for ſilk-worms.

Theſe trees are propagated by cuttings and layers, and alſo by ſeed. Cuttings of the young ſhoots, planted in a ſhady border, will grow; or you may plant ſeveral in a pot, plunged in a hot-bed, to forward their rooting; as alſo layers of the young ſhoots, either of young trees formerly headed down to the bottom, to form ſtools to furniſh lower ſhoots near the earth for laying, or of the lower branches of trees not headed; having pots of earth elevated on ſtands nearly up to the branches, and laying the ſhoots therein. They will be well rooted, in one ſummer, for planting off in autumn. To raiſe Mulberries from ſeed, ſow it in March, half an inch deep; obſerving in general, of the young plants raiſed in either method, to plant them out in nurſery-rows, for training, principally in ſtandards.

MYRICA,

MYRICA, CANDLE-BERRY MYRTLE. Of the claſs and order *Dioecia tetrandria.*

They are delicate, fragrant, aromatic ſhrubs for ornament; garniſhed with ſpear-ſhaped leaves, of a fragrant odour; and, on ſeparate plants, male and female flowers, compoſed of oblong, ſcaly catkins, the ſcales ſerving as cups to ſmall florets without petals; four ſtamina, and two ſtyles; the flower ſucceeded by bunches of ſmall waxy berries, of which, in one of the ſpecies, candles are made in America, its native ſoil.

The ſpecies are,

1. MYRICA *cerifera*, Common Wax-bearing Candleberry Myrtle. *(Upright ſtem, and ſpear-ſhaped ſlightly-ſawed leaves)* Three inches long.

Varieties.

Larger Candle-berry Myrtle.

Dwarf Broad-leaved Candle-berry Myrtle.

2. MYRICA *Gale*, *(Gale)* Sweet Gale, or Dutch Myrtle. *(Under-ſhrubby ſtalks, and ſhorter ſpear-ſhaped ſlightly-ſawed leaves.)*

Diſpoſe the Common Candle-berry-tree in a warm part of the ſhrubbery: the Sweet Gale delights in a moiſt ſituation.

Propagate them by ſuckers of the root, layers and cuttings of the young ſhoots, and by ſeed ſown in the ſpring half an inch deep.

N.

NYSSA, TUPELO-TREE. Of the claſs and order *Polygamia dioecia.*

It is an aquatic exotic tree, (of America) with oblong, broad, acuminated, entire leaves, on long foot-ſtalks; and hermaphrodite, and male and female flowers, in two diſtinct plants, growing in cluſters, and ſingly, in the different varieties.

The ſpecies is,

NYSSA *aquatica*, Aquatic or Water-Tupelo-Tree.

Varieties.

Multiflorous or Many-flowered Tupelo.

Uniflorous or One-flowered Tupelo.

Plant

Plant it in a moiſt ſituation in the ſhrubbery; and propagate it by layers, cuttings and ſuckers; and by ſeed ſown in a ſhady border in the ſpring.

O.

OLEA, OLIVE-TREE. Of the claſs and order *Diandria monogynia.*

It is an ever-green of fifteen or twenty feet growth, with moderate ſpear ſhaped oppoſite leaves, and cluſters of white flowers, having a one-leaved tubulous cup, a funnel-ſhaped, four-parted, ſpreading corolla, two ſtamina, roundiſh germen, with one ſtyle, and ſucceeded by an oval, ſmooth, green, eatable fruit, called Olives, proper for pickling.

The hardy ſpecies is,

OLEA *Europæa*, European Common Olive-tree.

Variety.

Tetragonous or four-cornered-leaved Olive-tree.

It being an exotic of the ſouthern warm parts of Europe, plant it againſt a warm wall, training the branches thereto; and ſome alſo as ſtandards, in the ſhrubbery: it may be propagated by layers of the young wood.

ONONIS, REST-HARROW. Of the claſs and order *Diadelphia decandria.*

They are low, very ornamental, flowering-ſhrubs, a foot and a half or two feet high; adorned with ternate, ſpear-ſhaped, ſawed leaves, and the branches terminated by panicle-cluſters of large red, and purple papilionaceous flowers in May or June, having a heart-ſhaped ſtandard, oval wings and pointed keel, ten diadelphous ſtamina, and one ſtyle, and ſucceeded by turgid, bivalvous, kidney-ſeeded pods.

The ſpecies are,

1. ONONIS *fruticoſa*, Shrubby Alpine Reſt-Harrow. *(Trifoliate ſpear-ſhaped ſawed leaves.)*

2. ONONIS *tridentata*, Tridented Fleſhy-leaved Spaniſh Reſt-Harrow. *(Trifoliate, narrow, thick, fleſhy, tridented leaves.)*

Plant the firſt any where in the front of the ſhrubbery clumps; the other in a warm ſituation; and ſome in pots, to

to be ſheltered from ſevere froſts; and you may propagate them by ſeed ſown in ſpring in a warm border, or in pots, and forward them in a hot-bed.

P.

PASSIFLORA, PASSION-FLOWER. Of the claſs and order *Gynandria pentandria.*

The *Paſſiflora* is a renowned ſhrubby cirrhoſe climber, with extenſive trailing ſhoots, of very rapid growth, mounting by ſupport thirty or forty feet high in a few years; and garniſhed with large, deeply-divided, palmated leaves, of five long, fingered lobes, attended by twining claſpers; and large, flat-ſpreading, widely-expanded, many-parted white and bluiſh flowers, of ſingular ſtructure, having a three-lobed involucrum, five-lobed cups, five oblong plane petals, incloſing a triply-radiated blue and purple fibrous or thready nectarium, around a centrical gynandrous column ſupporting five ſtamina, and a roundiſh germen elevating three ſtyles; each flower being only of one day's duration; and the germen ſucceeds to a large, oval, fleſhy fruit, not eatable.

There is but one hardy ſpecies, viz.

PASSIFLORA *cærulea*, Blue-rayed Common Paſſion-Flower. *(Palmated, or hand-ſhaped, fingered leaves, with the lobes entire.)*

Plant this celebrated climber, generally, againſt ſome warm ſoutherly high wall, or building, full to the ſun; and train its flexible branches thereto; for, being long and ſlender, they muſt have ſupport; and, as they produce their flowers on the long trailing ſhoots of the year, which advance many feet in length in one ſummer, they ſhould be trained up to the wall, &c. during their growth. In winter, prune out the weak and ſuper-abundant ſhoots, and worn-out old wood; retaining a ſupply of the ſtrongeſt ſhoots, ſhortened to a yard or more in length, and nailed up ſix or ſeven inches aſunder, to produce the next ſummer's flowering wood.

Propagate it by layers and cuttings of the young ſhoots in the ſpring, giving occaſional watering: they will very ſpeedily grow. Propagate it likewiſe by ſeed ſown half an inch deep in light earth, in March.

PERI-

PERIPLOCA, VIRGINIA-SILK. Of the claſs and order *Pentandria digynia.*

It is an under-ſhrubby, volubilate climbing exotic, running by ſupport thirty or forty feet high, ornamented with oblong, oppoſite leaves, and cluſters of monopetalous, wheel-ſhaped, five-lobed purple flowers, with five ſtamina and two ſtyles, ſucceeded by two oblong, bellied, many-ſeeded pods.

The hardy ſpecies is,

PERIPLOCA *græca*, Græcian Periploca, or Virginia Silk. *(Flowers hairy within-ſide, and oblong-oval leaves.)*

Admit it into the ſhrubbery, to climb round the ſtems of trees and poles, and to run over buſhes, hedges, and harbours; or train it againſt high walls. It propagates freely by layers and cuttings of the young ſhoots.

PHILADELPHUS, SYRINGA, or Mock-Orange. Of the claſs and order *Icoſandria monogynia.*

They are upright, buſhy, deciduous flowering-ſhrubs, of from four or five to eight or ten feet ſtature; ornamented with oval, ſpear-ſhaped, oppoſite leaves, and numerous bunches of conſpicuous white four-lobed odoriferous flowers, having four-parted, abiding cups, a corolla of four large roundiſh petals, twenty or more ſtamina, a four-parted ſtyle, ſucceeded by oval quadrivalved capſules, with many ſeeds.

The ſpecies are,

1. PHILADELPHUS *coronarius*, Coronous-flowered, or Common White Fragrant Syringa. *(Oval ſpear-ſhaped, ſlightly-indented leaves.)*

Varieties.

Dwarf Syringa.
Double-flowered Syringa.
Variegated-leaved Syringa.

2. PHILADELPHUS *inodorus*, Scentleſs Carolina Syringa. *(Oval entire leaves.)*

They are choice ornamental flowering-ſhrubs for all parts of the ſhrubbery, producing a profuſion of flowers in May and June; and are eaſily propagated by layers and cuttings of the young ſhoots, and ſuckers from the root.

PHILLYREA, *(Phillyrea)* or Mock-Privet. Of the claſs and order *Diandria monogynia.*

The

The Phillyreas are moſt eminent, ornamental ever-greens, of the ſhrub-kind, of largiſh, upright, very buſhy growth; ornamented with ſmalliſh, ovate and ſpear-ſhaped, ſhining, oppoſite leaves, throughout the year, and cluſters of ſmall greeniſh, funnel-ſhaped flowers, divided in five, two ſtamina, one ſtyle, and a globular one-ſeeded berry, ripe in autumn for ſowing.

The ſpecies are,

1. PHILLYREA *latifolia*, Broad-leaved True *Phillyrea*. *(Ovate-cordate ſerrated leaves.)*

Varieties.

Prickly Ilex-leaved Phillyrea.

2. PHILLYREA *media*, Middle Phillyrea, or Oval-leaved Mock Privet. *(Ovate-ſpear-ſhaped, almoſt entire leaves.)*

Varieties.

Privet-leaved Middle Phillyrea.

Olive-leaved Middle Phillyrea.

3. PHILLYREA *anguſtifolia*, Narrow-leaved *Phillyrea*. *(Narrow, linear-ſpear-ſhaped, very intire leaves.)*

Varieties.

Roſemary-leaved.

Lavender-leaved.

Stripe-leaved.

Theſe are all remarkably ſhowy ever-greens, branching numerouſly from the bottom upward; obtaining eight, ten, or twelve feet height in the firſt and ſecond ſpecies; in the third, ſix, eight, or ten; all retaining their leaves the year round: they are admirable furniture for adorning the ſhrubbery, &c. trained as buſhy ſtandards; alſo to form ornamental garden-hedges, or to train fan-ways againſt any diſagreeable wall, &c. to hide its defect.

Propagate them by layers, and by ſeed, in autumn or ſpring. Layers of the young ſhoots, ſlit or twiſted at a joint, in the part layed in the earth, will grow; and the ſeed or berries ſown in a bed of light earth, half an inch deep, will come up, ſome the firſt ſpring, but will moſtly remain till the ſecond; and the plants, when of one or two years growth, ſhould be bedded out in the nurſery, to obtain proper ſize.

PHLOMIS, JERUSALEM-SAGE-TREE. Of the claſs and order *Didynamia gymnoſpermia*.

They are ſhrubby hoary ever-greens, of Spain and Portugal, buſhy plants, with angular, woolly branches, with roundiſh and heart-ſhaped oblong, downy, whitiſh leaves,

and large whirled bunches of yellow, and purple flowers, having five angled perſiſtent cups, a tubular gaping corolla of one petal, two long, two ſhorter ſtamina, a four-parted germen with one ſtyle, ſucceeded by four naked ſeeds in the calyx.

The ſpecies are,

1. PHLOMIS *fruticoſa*, Shrubby Tree-like Phlomis, or Common Jeruſalem Sage. *(Roundiſh-oblong, crenated, hoary leaves, and yellow flowers.)*

Varieties.

Broad-leaved Phlomis.

Narrow-leaved Phlomis.

Dwarf Cretan Shrubby Phlomis.

2. PHLOMIS *purpurea*, Purple-flowered Under-ſhrubby Jeruſalem Sage. *(Heart-ſhaped-oblong downy leaves.)*

Introduce theſe ſhrubs in a warm, principal part of the pleaſure-ground: they will effect a ſingular, diſtinguiſhable variety all the year in their hoary leaves, and flower ornamentally in ſummer; and may be propagated by layers and cuttings of the young wood in ſpring and ſummer.

PINUS, PINE-TREE, FIR, and CEDAR-TREE. Of the claſs and order *Monoecia monadelphia.*

It conſiſts of many conſiderable ever-green, and one deciduous tree, all of the coniferous and reſinous tribe; trees of the firſt order, ſwift and ſtupendous growers, of remarkable value for timber and ornamental plantations, &c. cloſely garniſhed with aceroſe, linear, and awl-ſhaped perſiſtent leaves, ſome by two, three, or five together, others ſingly, and ſome in bundles; male flowers in ſcaly, conic ſpikes, and females in oval cones, of many rigid, ſcaly calyxes, no petals, numerous united ſtamina in the males, a ſmall germen and ſingle ſtyle in the females, ſucceeded by winged, hard, nut-like ſeeds, involved in a ſcaly, conical ſeed-veſſel or cone, of from one inch to ten or twelve long, ripe in winter and ſpring.

For diſtinction's ſake we arrange the ſpecies of this genus under three heads, viz.—1. *Pine-kinds*, having leaves two, three, and five together.—2. *Fir-kinds*, with all the leaves ſingly.—3. *Cedar and Larch kinds*, having the leaves in bunches.

The ſpecies are,

1. PINE-KINDS, *(Pinea.)*

Leaves by pairs, threes, and fives together in a ſheath, moſtly

moſtly of a greyiſh-green colour, and with ſeed-cones, from one or two inches, to eight or ten long, or more.

With two leaves.

1. PINUS *ſylveſtris*, (Wild Pine-Tree) or Scotch Pine, ſometimes called Scotch Fir. *(Short leaves growing in pairs, the primordial or firſt leaves ſingly, and ſmooth; and ſmall acute ſeed-cones.)*

Varieties.

——(*Pinaſter latifolius*) Pinaſter, or Broad-leaved Wild-Pine. *(Long, broader leaves in pairs, and very long cones.)*

—— *Small-leaved Pinaſter.*

—— *Dwarf Pinaſter.*

—— Virginian or Jerſey Two-leaved Prickly-coned Pine. *(Shortiſh leaves in pairs; and ſmall cones.)*

—— Aleppo Pine. *(Long dark-green leaves in pairs, and very ſmall cones.)*

—— Tartarian Pine. *(Short broad leaves in pairs, and very ſmall cones.*

2. PINUS *Pinea*, (Pinea) or Italian Stone Pine. *(Long leaves growing in pairs, the primordial or firſt leaves ſingly, and ciliated; and large turbinated, or top-ſhaped, cloſe, hard cones.)*

With three leaves.

3. PINUS *Tæda*, (Tæda) Frankincenſe-tree, or Virginia Three-leaved Pine. *(Long triple leaves, and large looſe cones.)*

—— Prickly-coned Virginia Three-leaved Pine.

—— Rigid-coned Virginia Three-leaved Pine.

—— Swamp American Three-leaved Pine. *(Very long tufted leaves.)*

With five leaves.

4. PINUS *Strobus*, (Strobus) Weymouth, or Smooth-barked Virginia Pine. *(Five long rough-edged leaves, ſmooth-barked ſtem, and long, ſlender, looſe cones.)*

5. PINUS *Cembra*, (Cembra) or Mountain Siberian Pine. *(Five long ſmooth leaves; and cloſe middling-ſized cones.)*

2. FIR-KINDS *(Abies.)*

Leaves growing ſingly, and thickly placed, but all diſtinct at the baſe, and with cones from an inch to ſix or eight inches long.

6. PINUS *Abies*, *(Abies)* Common Spruce or Norway

Pitch Fir. *(Awl-ſhaped ſmooth dark-green leaves, ſingly, ranged two ways, and long pendulous cones.)*

Varieties.

Red Norway Spruce Fir.
White Norway Spruce Fir.
Long-coned Corniſh Fir.

7. PINUS *canadenſis*, Canada Spruce Fir. *(Linear, ſhortiſh, obtuſe, ſomewhat membranaceous leaves, ſingly, and ſmall cones.)*

Varieties.

White Canada Spruce Fir.
Red Canada Spruce Fir.
Black Canada Spruce Fir.
(Americana) *American Hemlock Spruce Fir.*

8. PINUS *Picea*, (Picea) Pitch-tree, or Silver Fir. *(Flat, emarginated, ſingly-placed leaves, ſilvery underneath, &c. and long erect cones.)* Native of the Scotch highland mountains, &c.

9. PINUS *Balſamea*, (Balſamea) or Balm of Gilead Fir. *(Flat, obtuſe, ſomewhat emarginated, ſingly-placed dark-green leaves, doubly whitiſh-lined and punctated underneath, and ſhort round cones.)*

3. CEDAR *and* LARCH-KINDS (*Larix.*)

Leaves growing many together from one point in pencilled bunches, ſpreading out each way; compriſing thefamous Cedar of Lebanon, &c.

10. PINUS *Cedrus*, (Cedrus) Cedar of Lebanon. *(Bundled acute leaves, and large roundiſh cloſe cones.)*

This is the famous Cedar mentioned in Scripture, a ſuperb, beautiful ſpreading tree, of ſolemn grandeur.

11. PINUS *Larix*, (Larix) Larch-tree, or Deciduous Cedar. *(Bundled obtuſe leaves, and ſmall acute cones.)*

Varieties.

Red Larch-tree.
White Larch-tree.
Black Larch-tree.
Horizontal Spreading Larch-tree.
Dwarf Larch-tree.

This grand collection of *Pinus* are all of the firſt-rate ever-green tree kind, except the *Pinus Larix*, which is deciduous; obtaining, in the different ſpecies, from thirty or forty, to ſixty, eighty, and an hundred feet in height; aſpiring with a ſingle, erect, ſtraight ſtem, branching

branching in circular rays regularly from the bottom upward; and the branches, gradually diminiſhing to the top, form a beautiful conical or pyramidal head, aſſuming a ſingular grandeur, and arriving to a vaſt magnitude.

All the ſorts have great merit, to arrange in all pleaſurable and profitable plantations; are beautifully ornamental in their growth; and their timber is of the greateſt value, as the principal wood employed in all kinds of building, and of ſuperior excellence in ſhip-building, eſpecially for furniſhing the fineſt maſts in the world; particularly the Pine and Fir-kinds, and more eſpecially the Scotch Pine, Pinaſter, and Weymouth Pine, being the loftieſt growers, the latter arriving at an hundred feet in height; but the Cedar of Lebanon, and Larch-tree, are alſo very valuable timber-trees.

Deſigned for pleaſurable plantations, all the ſpecies are proper, and may be arranged in continued plantations, groves, &c. both diſtinct, and in concert with others of the ever-green tribe; alſo in clumps, and in detached ſingle or double rows; as well as for grand walks and avenues; likewiſe diſpoſed ſingly in detached ſtandards: in all of which methods they ſhould generally be planted at ſufficient diſtances to give room for their heads to ſpread freely around.

When intended for timber plantations, you may introduce all the larger kinds, ſuch as the Scotch Pine, Pinaſter, Weymouth Pine, Swamp Pine, Stone Pine, Spruce Firs, Silver Firs, and the Cedar of Lebanon and Larch-tree; which for timber ſhould be planted in conſiderable continued plantations; in rows pretty cloſe at firſt, five or ten feet aſunder, to draw one another up ſtraight, and more expeditiouſly in height; and in ſeven years thin them out for poles, &c. repeating the thinning out of the underling-trees, leaving the beſt ſtanding, at twenty, thirty, or more feet diſtance, to arrive at full growth.

They are all ſo hardy as to grow freely in almoſt any ſoil and ſituation, either in gardens, parks, fields, plains, or ſides or tops of hills; but the Scotch Pine particularly is the moſt hardy of all, proſpers in ſwamps, on mountains, or rocks, where hardly any earth is, their roots penetrating into the crevices thereof; ſo that all the ſorts may be planted almoſt any where.

Theſe trees abound in a ſtrong reſinous ſubſtance; and it is from the Pine and Fir-kinds, that pitch, turpentine and reſin, are extracted.

The plantations of all theſe trees ſhould be performed while the trees are young; if only from three or four to five or ſix feet high, the better; they take root more kindly than larger plants: but for timber plantations, particularly, it is of much importance that they be planted out finally at two or three feet height.

The beſt ſeaſon for planting all the ſorts is either in autumn, in October and November, or in ſpring about February and March; or indeed, in open, mild ſeaſons, it may be performed any time from October to March.

The propagation of all the ſpecies is effected only by ſeed, in beds of common light earth, in the ſpring, March and April. The ſeed is obtained from the cones, ripening in autumn and winter, and is to be procured at moſt of the nurſeries and ſeed-ſhops. Clear the ſeeds from the cones, either by expoſing the cones in the ſun, or towards a gentle fire, to make them open, to diſlodge the ſeeds: or ſome of the large, hard, cloſe cones, as in the Stone Pine, and Cedar of Lebanon, muſt be ſplit open by boring a hole up the middle, and driving a peg therein, which will divide them to come at the ſeeds.

The ſeed may be ſown in three or four-feet wide beds of light earth; which being raked fine, ſow the ſeed tolerably thick all over the ſurface, and cover it regularly with fine mould, half an inch deep; or ſome may be ſown in large pots or boxes, but more particularly the Cedar of Lebanon, being the tendereſt, in order to move the pots of ſeedlings into ſhade in ſummer, and a ſheltered ſunny ſituation in winter.

The ſeedling plants come up in ſix or eight weeks. Give moderate waterings, and weeding in ſpring and ſummer. They riſe the firſt year with only a few leaves, with a ſhort bud in the centre, or probably ſome make a ſhort ſhoot by the autumn. Let them remain in the ſeed-bed till next ſpring, obſerving, if ſevere froſt, to give occaſional ſhelter of mats, or a frame, to the Cedar of Lebanon particularly; the others require none: then, in March or April following, prick them out in beds, in rows ſix or eight inches aſunder; and having two years growth here, tranſplant them in rows two feet and a half diſtant, to remain till large enough for final tranſplantation, permitting them to advance with the top ſhoot entire, nor trim the lateral branches, except occaſional low ſtragglers near the ground.

When

When the trees are from two or three, to five or ſix feet in height, you may plant them out finally where they are to remain; ſtill continuing their leading top ſhoots always entire, and only pruning occaſionally any irregular ſtraggling lower branches, according as the trees gradually advance in growth.

PISTACIA, PISTACHIA-NUT, or Turpentine-tree. Of the claſs and order *Dioecia pentandria.*

The hardy *Piſtachias* are principally of the deciduous tree kind for variety in plantations; having pinnated and trifoliate leaves, and male and female flowers, on ſeparate trees, conſiſting of ſmall florets without petals, the males compriſed in looſe catkins, having five ſtamina with large four-cornered antheræ, and the females growing in cluſters, with trifid cups, oval germen and three ſtyles, ſucceeded by an oval berry-like fruit with an oval nut.

The ſpecies are,

1. PISTACIA *vera*, True Piſtachia-Tree. *(Completely winged leaves, with ſub ovate recurved lobes.)*

2. PISTACIA *Terebinthus*, (Terebinthus,) or Turpentine-Tree. *(Completely-winged leaves, with ovate-ſpear-ſhaped lobes.)*

3. PISTACIA *trifolia*, Trifoliate-leaved Piſtachia-Tree. *(Leaves moſtly trifoliate, or with three diſtinct lobes.)*

4. PISTACIA *narbonenſis*, Narbonne Turpentine-Tree. *(Pinnated and trifoliate almoſt round-lobed leaves.)*

Theſe trees, being of the Southern parts of Europe, are not ſo hardy as ſome, and ſhould therefore have a warm ſituation in the ſhrubbery, and ſome be indulged againſt a high wall, trained thereto: they will flower annually, but their nuts do not ripen in England.

They are propagated by ſeed, and by layers. Sow the nuts in the ſpring, ſome in pots to be forwarded in a hot-bed, and ſome in the natural ground an inch deep; keeping the young plants in pots two or three years, to move for ſhelter in froſty weather; then plant them in the full ground. Make layers of the young ſhoots in ſpring and ſummer.

PLATANUS, PLANE-TREE. Of the claſs and order *Monoecia polyandria.*

The *Platanus* furniſhes moſt eminent deciduous ornamental and foreſt-trees, of remarkably ſtraight and lofty growth, with very ample palmated and lobated ſimple leaves, and male and female flowers apart on the ſame tree,

collected

collected, the males into globular catkins, and the females into a large roundiſh ball, ſuſpended in long ſtrings; the male florets ſcarcely viſible, and many ſmall petals in the females; numerous male ſtamina, and ſeveral germina and ſtyles, ſucceeded by numerous ſeeds incloſed in down, collected into rough, hard, round balls. They ripen in autumn for ſowing.

The ſpecies are,

1. PLATANUS *Orientalis*, Oriental or Eaſtern Palmated-leaved Plane-Tree. *(Palmated leaves, deeply divided in five principal lobes.)* Native of Aſia.

Variety.

Maple-leaved Plane-tree, with more ſlightly-divided leaves.

2. PLATANUS *Occidentalis*, Occidental, or Weſtern Plane-Tree of America. *(Leaves lobated into three lobes.)* A Native of America.

Variety.

Spaniſh Plane-tree, with three or five-lobed, very large leaves.

Theſe are noble trees, of vaſt altitude, clothed with moſt luxuriant beautiful leaves, from ſix or eight to twelve or fifteen inches broad, meaſured from the extremities of the ſide-lobes; and the flowers, produced in balls ſuſpended in long pendulous peduncles, effect an agreeable ſingularity.

Theſe auguſt trees, therefore, merit a principal ſtation in all ornamental tree collections; are admirable in avenues, groves, and woods; as alſo when diſpoſed in ranges, groups, and clumps; in ſingle ſtandards, in parks or fields; or dropped ſingly in ſpacious lawns. They are alſo peculiarly adapted for ſhade in ſummer, and demand admittance in all foreſt-tree plantations.

They are propagated by ſeed, layers, and cuttings, in the autumn or ſpring. The ſeed is ſold at the nurſeries, &c. which ſow in October or November, or in the ſpring, in a bed of good light earth, moderately thick, either at once on the rough ſurface, and raked in, or the ſurface previouſly raked ſmooth, and draw ſome earth off into the alleys; then ſow the ſeeds, ſmooth them down into the earth with the back of the ſpade; and then, in either method, cover them with the earth out of the alleys evenly, about half an inch deep; and at a year or two old, plant out the young plants in nurſery-lines two feet and a half aſunder, to be

here

here trained with clean ſingle ſtems. Layers of young ſhoots produced near the ground, layed by ſlit-laying, will root, and form ſtout plants by autumn; and cuttings of the ſtrong clean ſhoots will alſo ſucceed.

POPULUS, POPLAR-TREE. Of the claſs and order *Dioecia octandria.*

It comprehends a valuable collection of moſt uſeful deciduous foreſt-trees of the aquatic tribe; ornamented, in ſummer, with large roundiſh and heart-ſhaped leaves; and on ſeparate trees, male and female flowers, diſpoſed in oblong, looſe, ſcaly amentums, each ſcale forming a cup to one floret, without any petals, eight ſtamina with four-cornered anthera, and a ſhort ſtyle with quadrifid ſtigmas, ſucceeded by oval capſules with many downy oval ſeed.

The ſpecies are,

1. POPULUS *alba*, White Poplar or Abele-Tree. *(Roundiſh-dentated-angulated leaves, downy and whitiſh underneath.)*

Varieties.

Large-leaved White Poplar, or common Abele-tree, or Arbele.

Small-leaved White Poplar.

Variegated-leaved.

2. POPULUS *nigra*, Black Poplar. *(Deltoid-hearted, acuminate, ſerrated leaves.)*

3. POPULUS *tremula*, Trembling-leaved Poplar, or Aſpen-Tree. *(Roundiſh-dentated-angulated leaves, ſmooth on both ſides, kept in a continual tremulous or wavering motion by the leaſt wind.)*

4. POPULUS *heterophylla*, Heterophyllous or Variable-leaved Virginia Poplar. *(Heart-ſhaped and roundiſh leaves, the firſt ones hairy.)*

Variety.

Athenian variable-leaved Poplar.

5. POPULUS *balſamifera*, Balſamic Carolina Poplar. *(Large, almoſt heart-ſhaped, denticulated leaves, and the young buds full of a balſamic odoriferous gummy reſin.)*

Variety.

(Tacamahacca) *Tacamahac Poplar or Balſam-Tree*, having very balſamic early buds, and oblong-ovatiſh, and ſomewhat hearted leaves. The balſamic ſubſtance of the buds and leaves is moſt efficacious for cuts or green wounds.

6. POPULUS

6. Populus *italica, (Padenſis)* Italian, or Lombardy Pyramidal Poplar, of the river Po. *(Roundiſh orbiculate, acute pointed, ſmooth, ſhining leaves.)* A remarkably ſwift grower, branching erectly and numerouſly from the very bottom, in a pyramidal order, covered with a light-coloured bark; a very ornamental and uſeful tree, and peculiarly calculated for forming the moſt expeditious defenſive plantations, both for ſhelter and as a blind, trained both in branchy ſtandards, and hedge-ways.

Theſe are all of the large tree kind, and principally of the aquatic nature, delighting to grow in humid ſoils: they will ſucceed, however, almoſt any where, but moſt proſperouſly in moiſture, in which they ſhoot up at a vaſt rate.

They may be cultivated expeditiouſly in all ſituations; but to very conſiderable advantage in all low, watery, or, boggy ſoils, both in ſtandard-plantations for the timber, which is valuable for its peculiar whiteneſs, and eminent for many purpoſes; and as under-wood, in coppices and hedges, and along river or brook-ſides, or in moiſt places, to fell often for poles and ſpars.

In every order of training, theſe trees grow incredibly ſwift, arriving to conſiderable growth in a few years; and, where a defenſive plantation is required in haſte, the Poplars are particularly commendable in any ſituation.

For ornamental purpoſes, the Abele, Carolina, Tacamahacca, and Lombardy Poplars claim precedence; and the Lombardy kind particularly for its expeditious and beautiful growth: but all the ſorts are peculiarly calculated to join in any outward plantations on the boundaries of lawns, parks, fields, and any out-ground, or to adorn any low, marſhy, or boggy premiſes.

The propagation of Poplars is eaſy and expeditious, by cuttings, layers, and ſuckers, in autumn, winter, or ſpring. Cuttings either of the young ſhoots, or large poles and truncheons, two or three years old, of a yard or two long, planted in humid ſituations, grow freely; but to raiſe a large quantity of handſome plants, cuttings of the ſtrong yearling ſhoots are moſt eligible, planted in a nurſery, and trained with ſingle ſtems: or cuttings of large truncheons or poles may be ſet at once to remain in any moiſt places, admitted half a yard into the ground. Layers of any lower young ſhoots grow expeditiouſly; and ſuckers from the root form rooted plants at once, to plant in the nurſery for training, or the large ones where they are to remain. They

They may alſo be raiſed from ſeed, if care is taken to gather it as ſoon as ripe, and ſow it half an inch deep in autumn.

POTENTILLA, CINQUEFOIL-SHRUB. Of the claſs and order *Icoſandria polygynia*.

It is a buſhy deciduous flowering-ſhrub, of three or four feet growth, with pinnated five-lobed leaves; and cluſters of large yellow flowers, in July, of five roundiſh petals, twenty or more ſtamina, and many ſtyles, ſucceeded by a head of ſeeds lodged in the calyx.

The ſpecies is,

POTENTILLA *fruticoſa*, Shrubby Potentilla, or Common Cinquefoil Shrub. A native of England, &c.

Admit it in all ſhrubberies, &c. for ornament; and propagate it by ſuckers, layers and cuttings.

PRINOS, WINTER-BERRY. Of the claſs and order *Hexandria monogynia*.

They are deciduous and ever-green American ſhrubs, growing ſix or eight feet high; with moderate oblong and ſpear-ſhaped ſimple leaves; and wheel-ſhaped flowers, in July, one, two, or three together, having a ſix-parted cup and corolla, ſix ſtamina, and one ſtyle, ſucceeded by ſix-ſeeded purpliſh berries, remaining all winter.

The ſpecies are,

1. PRINOS *verticillata*, Whirled Deciduous Winter-Berry of Virginia. *(Leaves longitudinally ſawed.)*

2. PRINOS *glabra*, Smooth Evergreen Canada Winter-Berry; Yappon, or South-Sea Thea Shrub. *(Leaves ſawed at the top.)*

Plant them in the principal ſhrubbery, the ever-green kind chiefly in a ſheltered ſituation. You may propagate them by ſeed ſown in the ſpring, half an inch deep, or in pots plunged in a hot-bed, juſt to bring up the plants the ſame year; and give them ſhelter the firſt two or three winters. Try them alſo by cuttings in a hot-bed, and by layers.

PRUNUS, PLUM-TREE, CHERRY and APRICOT, &c. Of the claſs and order *Icoſandria monogynia*.

The *Prunus*, by the laws of botany, comprehends the Plum-tree, Cherry, Apricot, and Laurel-tree, all ſpecies of the ſame genus, which alſo compriſing ſeveral other ſpecies, all of the hardy-tree and ſhrub kind, furniſh a choice collection, both for the fruit-garden, orchard, and ornamental,

ornamental, and foreſt-tree plantations; conſiſting of twelve deciduous, and three ever-green ſpecies; all garniſhed with ſpear-ſhaped and ovaliſh ſimple leaves; and numerous white flowers, with one-leaved five-parted cups, a corolla of five roundiſh petals, twenty or more filaments, roundiſh germen and one ſtyle. The germen ſucceeds to a roundiſh drupaceous, ſoft, eatable fruit, of various ſizes, ſhapes, and colours, in the different ſpecies and varieties, incloſing a hard ſtone or nut.

The ſpecies are,

1. *The* PLUM-KINDS,

Compriſing one principal ſpecies, (Common Plum) with many fine varieties, and two other ſpecies, of leſs note, viz.

1. PRUNUS *domeſtica*, Domeſtic, or Cultivated Common Plum-Tree. *(Spear-ſhaped-ovate leaves, and with flower-ſtalks for the moſt part ſingly.)*

Varieties of the tree.

Double-bloſſom Plum-Tree.
Yellow-blotched-leaved Plum-Tree.
White-ſtriped-leaved Plum-Tree.

The varieties of the fruit are exceedingly various in regard to ſhape, ſize, and colour, &c. ſome being round, others oval, ſome not larger than nutmegs, and ſome as large as hen-eggs, and of the ſame ſhape; and, as to colours, are white, yellow, red, blue, green, &c. in the different varieties, ripening from the end of July until the end of September and October. They are known by the following names, viz.

— *Précoce Damas Noir*, or *Early Black Morocco Plum.*
— *Early White Primordian Plum.*
Little Black Damaſk Plum.
— *Orleans Plum (Red.)*
— *White Orleans Plum.*
Great Damaſk Plum (Blue.)
— *Green-gage Plum (All Green)*
Queen Claude Plum (Yellowiſh-green.)
Little Queen Claude Plum.
— *White Perdrigon Plum.*
— *Black Perdrigon Plum.*
— *Blue Perdrigon Plum.*
Fotheringham Plum.
— *Drap d'Or Plum (Bright Yellow.)*

Roche

Præcoce d'Tours (Dark-purple, very early and fine.)
Roche Courbon Plum (Red.)
Red Imperial Plum (Large oblong.)
White Bonum Magnum (Very large, egg-ſhaped.)
Red Bonum Magnum, or Great Imperial Plum.
Cheſton Plum (Blue.)
Imperatrice Plum (Dark-red.)
Brignole Plum (Yellowiſh.)
Wentworth Plum (Yellowiſh.)
Little Green Damaſk Plum.
St. Catharine Plum (Amber-colour.)
Mirabelle Plum (Greeniſh-yellow.)
Royal Plum (Red.)
Myrobalan Plum (Black-purple.)
Pear Plum (Whitiſh.)
Apricot Plum (Yellowiſh.)
Cherry Plum (Small round red.)
Damaſcene, or Damſon Plum (Dark blue.)
Muſcle Plum (Dark-red.)
St. Julian Plum (Darkiſh-violet.)

2. PRUNUS *inſititia*, Inſititious Wild-Plum or Bullace-Tree. *(Ovate leaves, hairy underneath, and flower-peduncles moſtly in pairs.)* Grows wild in England, &c. in hedges and woods; producing a ſmall ovaliſh Plum, of a ſharp, agreeable acid flavour.

Varieties of the fruit.

Black Bullace.
White Bullace.
Red Bullace.

3. PRUNUS *ſpinoſa*, (Thorny Wild Prunus,) Sloe-Tree or Black-Thorn Buſh. *(Spinous branches, ſpear-ſhaped ſmooth leaves, and with the flower-peduncles ſingle.)* Grows wild in hedges in England, &c. producing ſmall berry-like black fruit, of a very auſtere reliſh.

PRUNUS CERASUS, or CHERRY-KINDS,

Comprehend one or two chief Species, with many excellent Varieties of the Fruit, and ſeveral other Species of leſs note, proper for the Shrubbery, viz.

4. PRUNUS *Ceraſus*, (Ceraſus) or Common Cherry-Tree. *(Ovate-ſpear-ſhaped conduplicate ſmooth leaves, and almoſt ſeſſile flower-umbels.*

Varieties of the trees.

Double-Bloſſom Cherry, (very beautiful.)

Red-Bloſſom Cherry, (a curioſity.)
Dwarf Cherry.

Varieties of the fruit are very many, of red, whitiſh-red, yelloviſh, and black, ripening from May until July and Auguſt; and ſometimes the Morello Cherry, on North walls, and defended from birds, &c. with nets, will continue in good perfection till September: but early Cherry-Trees, forced in hot-walls, or forcing-cherry-houſes, &c. produce ripe fruit in March and April, till ſucceeded by thoſe in the open ground, againſt South walls in May; and theſe, by others on North-walls, and the Standard Cherries, whereby a regular ſucceſſion of ripe Cherries may be continued for three or four months, in the different varieties, conſiſting of the following, viz.

Early Small May Cherry (May.)
May-Duke Cherry (May, June.)
Arch-Duke Cherry (June, July.)
White-Heart Cherry ———.
Black-Heart Cherry ———.
Red-Heart Cherry (July.)
Amber-Heart Cherry (July, Auguſt.)
Ox-Heart Cherry ———.
Bigeroon, or Harriſon's Heart ———.
Bleeding Heart Cherry ———.
Kentiſh Cherry ———.
Turkey Heart Cherry ———.
Lukeward Cherry ———.
Yellow Spaniſh Cherry ———.
Carnation Cherry (Auguſt.)
Crown-Heart Cherry ———.
Tradeſcant's Cherry ———.
Morello Cherry (Auguſt, September.)

5. PRUNUS *avium*, (Birds fruited,) or Great Wild Cherry-Tree. *(Ovate-lance-ſhaped leaves, downy underneath, conduplicate, or ſomewhat doubled; and ſeſſile flower-umbels, ſucceeded by ſmall round fruit.)*

Varieties.

Small Black-fruited.
Small Red-fruited.
Larger Red-fruited.
Largeſt Black-fruited, called Coroon, or Couronne Cherry.

BIRD

BIRD-CHERRY, and other SMALLER PRUNUS KINDS.

6. PRUNUS *Padus*, *(Padus,)* or Common European Bird-Cherry. *(Oblong roughiſh ſerrated leaves, the baſe two-glanded underneath, and long racemous cluſters of white flowers, ſmall black fruit, not eatable.)*

Varieties.

Common, Small Black-fruited.

Corniſh, Larger Red-fruited.

7. PRUNUS *virginiana*, Virginian Evergreen Bird-Cherry. *(Leaves ovate-oblong two-glanded before the baſe; and long racemes of white flowers, ſmall round fruit, not eatable.)*

8. PRUNUS *canadenſis*, Canada Dwarf Bird-Cherry. *(Broad-lance-ſhape wrinkled glandleſs leaves, both ſides downy, racemes of white flowers, ſmall round fruit, not eatable.)*

——— *canadenſis ſtricta*, Upright Canada Bird-Cherry.

——— *canadenſis nigra*, Black Canada Bird-Cherry.

9. PRUNUS *Mahaleb*, *(Mahaleb,)* or Perfumed Cherry. *(Leaves ovate, flowers in a corymbus, and ſmall fruit.)*

10. PRUNUS *penſylvanica*, Pennſylvanian dotted branched Prunus. *(Ovate ſpear-ſhaped leaves, ſmaller branches ſlightly-dotted, cloſe-ſitting flower-umbels.)*

11. PRUNUS *pumila*, Dwarf narrow-leaved Prunus. *(Ovate-oblong leaves, ſeſſile, or cloſe-ſitting flowers.*

APRICOT KINDS.

12. PRUNUS *Armeniaca*, *(Armeniaca,)* or Apricot-Tree. *(Leaves ſub heart-ſhaped, cloſe ſitting flowers, and large roundiſh fruit.)*

Varieties of the fruit.

Early White Maſculine Apricot (July.)
Early Red Maſculine Apricot ——.
Orange Apricot (end of July, Auguſt.)
Turkey Apricot ——.
Algiers Apricot ——.
Roman Apricot ——.
Tranſparent Apricot ——.
Temple Apricot (Auguſt.)
Breda Apricot (Auguſt, September.)
Bruſſels Apricot ——.
Dunmore Breda Apricot ——.

Striped-leaved.
Dwarf growing.

13. PRUNUS *ſiberica*, Siberian Birch-leaved Apricot. *(Leaves ovate-oblong, flowers ſitting cloſe.)*

PRUNUS LAURO-CERASUS, or LAUREL KINDS.

14. PRUNUS *Lauro-Ceraſus*, *(Lauro-Ceraſus,)* Cherry-Laurel, or Common Laurel-Tree. *(Leaves oblong, large, ſtiff, ever-green; the back two-glanded, racemous-cluſtered white flowers, black berries, not eatable.)*

Broad-leaved.
Narrow-leaved.
Gold-ſtriped-leaved.
Silver-ſtriped leaved.

15. PRUNUS *luſitanica*, Luſitanian or Portugal Laurel. *(Leaves ovate, dark-green, without glands, ever-green; and racemes of white flowers, black berries, not eatable.)*

The above family of *Prunus*, conſiſting of fifteen ſpecies of tree and ſhrub kinds, furniſh a moſt eligible diverſity for uſe and ornament; both comprehending a valuable collection of different ſpecies of capital fruit-trees, furniſhing many eminent varieties; ſome foreſt-trees, and many ornamental trees and ſhrubs; five or ſix ſpecies, and their reſpective varieties, being of the fruit-tree kind, compriſing the Common Plum, Cherry, Great Wild Cherry, Bullace-Tree, Sloe-Tree, and Apricot; ſome of which are alſo proper for the foreſt-tree plantations, particularly the *Prunus avium*, or Great Wild Cherry; as likewiſe the *Prunus domeſtica*, and *Prunus Ceraſus*, in their wild or ungrafted ſtate, their wood being in requeſt in various trades: but all the other ſpecies, conſiſting of the Bird Cherry kinds, Perfumed Cherry, Laurels, &c. are moſt deſirable furniture for diverſifying the ſhrubbery, and other pleaſurable plantations for ornament: or any curious varieties of the fruit-tree kinds, are alſo moſt eligible to introduce in the ſhrubbery, &c. as they will exhibit an agreeable diverſity in their abundant bloſſom, as well as in their different fruits; likewiſe the Sloe-Tree, or Black-Thorn, aſſuming a buſhy thorny growth, is eligible to plant for field hedges, defenſive againſt cattle; and the two ſpecies of Laurel, although principally employed as ornamental

ornamental evergreen ſhrubs, are of the tree-kind, and proper to introduce likewiſe in the evergreen foreſt-tree plantations; more particularly the *Lauro-Ceraſus*, or Common Laurel, as it will attain a large growth in any common ſoil, and open expoſure: the Common Laurel too makes a beautiful ornamental hedge, or may be planted hedge-faſhion, by way of a blind, where neceſſary, or to hide any unſightly walls, &c. near the habitation, or where required.

The fruit-tree kinds of this genus conſiſt principally of the common cultivated Plum, Cherry, and Apricot, and their reſpective varieties; the merit of which ſpecies being well known, no good garden ſhould be without an eligible collection of the beſt varieties, in proportion to the extent of ground, both in wall-trees, eſpaliers, and ſtandards; and, for variety, you may alſo introduce ſome Standard Bullace-Trees; likewiſe ſome Sloes, trained for Dwarf, and Half Standards.

Of the Plum kinds, the *Prunus domeſtica* is moſt valuable for its numerous fine varieties; is a tree of middling growth, attaining between twenty and thirty feet height in ſtandards; affords a remarkable diverſity in its fruit, ripening from July till the end of October, in the different varieties, both for eating, and for tarts, pies, &c. therefore very profitable both for domeſtic uſe, and market-ſupply; and as the trees grow freely in any common ſoil, of a garden, or orchard, &c. it is of importance to plant a good collection of the principal varieties, in wall-trees, eſpaliers, and full and half ſtandards. The Bullace-Tree growing twelve or fifteen feet high, produces a ſmall Plum, of a very acid, but agreeable reliſh; wholeſome to eat when quite ripe, in the end of September, and in October; and a few trees thereof demand admittance in the Plum collection, to increaſe the variety among the late ſtone fruits: As to the Sloe tree, which aſſumes a ſhrub-like growth, and furniſhes the ſmalleſt fruit of all the Plum kind, very black, and berry-like, of an auſtere quality, though palatable to ſome, and being alſo uſeful both for ſeveral domeſtic purpoſes, and for medicine, it may be admitted for variety, the fruit ripening the end of October, &c; but as this tree grows very branchy to the bottom, and armed with thorns,

its greateſt merit is to plant for rough field hedges, as before ſuggeſted, in which it will alſo produce plenty of fruit.

In the Cherry kind, the *Prunus Ceraſus*, or Common Cherry-Tree, compriſing its different varieties, is the principal ſpecies for general culture; is of moderate growth, valuable for producing the earlieſt ripe ſummer-fruit, continuing two or three months; moſt refreſhing to eat in the heat of ſummer, as well as uſeful for various kitchen purpoſes, and on other domeſtic occaſions, and a profitable fruit for market: therefore you ſhould never omit planting an eligible portion of the trees, in different varieties; allotting ſome of the principal ſorts for walls, and a larger ſupply for ſtandards, in the garden and orchard; and ſome half-ſtandards and dwarfs, for forcing in hot-walls, cherry-houſes, &c. And as to the Great Wild Cherry-Tree, (*Prunus avium,*) the common ſmall-fruited varieties growing thirty or forty, to fifty feet high, are eligible to plant for ſtandards, in orchards, or any extenſive premiſes; are great bearers, but the fruit very ſmall: but the Large Red-fruited Wild Cherry, and the ſort called the Black Couronne, both varieties of that ſpecies, are trees of more moderate growth, producing handſome-ſized Cherries; more particularly the Couronne, or Coroon, which is of a moſt agreeable bitteriſh flavour, peculiar to all the other varieties of this ſpecies, and therefore both thoſe two varieties ſhould be admitted freely in every garden, &c. in the principal Cherry collection; but more abundantly the Couronne.

The Bird-Cherry kinds, Perfumed Cherry, &c. are all moderate ſhrub-like growers, proper for the ſhrubbery plantations.

The Apricot, *Prunus Armeniaca*, is a handſome ſpreading tree, of middling growth; ſhould be cultivated principally as a wall-tree, againſt ſouth, ſouth-weſt, and eaſterly walls; and the Breda, and Bruſſels Apricot, alſo in half-ſtandards.—See the *Culture of the Apricot kind*, under its proper head, page 119.

General culture of the Plum and Cherry kinds.

The Plum and Cherry trees produce their flowers and fruit moſtly upon ſpurs, emitted from the ſides and ends of the branches, of from two or three to many years old, ariſing firſt towards the upper parts thereof, then gradually along

along the ſides; provided the branches remain moſtly at their natural length, for they do not admit of ſhortening.

Conſidered as fruit-trees, ſome of the beſt Plums and principal varieties of the Common Cherry ſhould be arranged as wall trees againſt walls of different expoſures, planted not leſs than fifteen or eighteen feet aſunder; and ſome alſo in eſpaliers, at the ſame diſtance; training the branches, both of the wall and eſpaliers, horizontally, five or ſix inches aſunder, and always at full length, as far as there is room to extend them; but allot a larger or more general collection in half and full ſtandards for planting detached in the garden and orchard, trained with four, five, and ſix-feet ſtems, branching out above at thoſe heights, into full heads, and planted twenty or thirty feet diſtance, and permitted to branch moſtly in their natural way, as explained hereafter.

The Common Wild Cherry is proper to cultivate principally for large ſtandards, to plant in orchards, &c. and to arrange in avenues, parks, and hedge-rows in fields; and ſhould be permitted to run in its natural growth.

But the variety called the Black Couronne deſerves a place principally in the garden and orchard collections, trained both in full and half ſtandards.

The Common Plum and Cherry are propagated by grafting and budding the deſirable varieties upon any ſtocks of their own kind, raiſed from the ſtones of the fruit, or the Plums alſo, by ſuckers from the root of old trees; the grafting, &c. being performed either low in the ſtock, within ſix or eight inches of the ground, for common dwarf wall and eſpalier-trees, or at four, five, or ſix feet height, for half and full ſtandards; and when the firſt ſhoots are a year old, cut them down to a few eyes, to force out lateral ſhoots to form the head; after which, when of one, two, three, or more years growth, they may be planted out to remain at the diſtance before adviſed.

The wall and eſpalier Plums and Cherries having the branches ranged five or ſix inches aſunder, regularly from the bottom to the top of the wall, &c. the ſame branches continuing in bearing many years upon ſpurs, they do not want a general annual renewal of young wood for bearers, like trees bearing on the young ſhoots, as Peaches, Nectarines, Figs, &c. but only require here and there a good

ſhoot

ſhoot in caſual vacancies, or as any old bearer decays, or aſſumes an unfruitful ſtate: they will however require an annual pruning, both in ſummer and winter, to preſerve the requiſite regularity.

The ſummer-pruning is to regulate the uſeleſs growths of the year only, and may be commenced in May or June by early rubbing or pruning off all foreright wood-ſhoots of the ſame ſeaſon, very luxuriant growths, and all the ſuperfluous wood, or ſuch ſhoots as are evidently over-abundant or unneceſſary, cloſe off to the mother-branches, without leaving any ſtumps or ſnags; carefully retaining, at the ſame time, a moderate ſupply of the beſt well-placed middling-ſtrong ſide ſhoots on the lateral parts of the general mother-branches, gradually from the bottom upward, and in vacancies, in order to be trained in at their full length, to remain till winter-pruning, as a reſerve, in caſe any ſhall be then wanted, either to furniſh void ſpaces, or ſupply the places of caſual, worn-out, decayed, or other unfruitful branches; being alſo careful to retain the terminating or leading ſhoots, one to each mother-branch, as far as there is room to extend them; then, continuing the whole ſupply of the retained regular ſhoots entire, at their natural length, let them be all trained in ſtraight and cloſe to the wall, &c. in regular order, between the main branches, all ſummer, and not ſhortened: for theſe, and all other fruit-trees that bear upon ſpurs on the ſeveral years branches, do not admit of ſhortening the ſhoots, either in the ſummer or winter pruning, as it would force out numerous unneceſſary lateral ſhoots, and prevent the formation of fruit-ſpurs, which, as being the principal bearing parts of theſe trees, you will, in the proceſs of ſummer-pruning, be careful to diſtinguiſh and preſerve every where, they appearing of ſhort robuſt growth, of half an inch or an inch long, ariſing along the ſides of the branches, if not ſhortened.

Though, in regard to ſhortening, if in the courſe of the ſummer regulation any wide vacancy occur, or in young trees under training, ſome contiguous ſtrong young ſhoot or ſhoots of the year, being ſhortened to a few eyes in May, or early in June, they will afford a ſupply of collaterals the ſame ſeaſon, to furniſh the vacancy more expeditiouſly and effectual.

But

But except in caſe of a vacancy, as above, continue all the reſerved ſhoots entire, as before obſerved, and the whole remaining till winter; when, after ſelecting a ſupply of the beſt where wanted, the reſt muſt be all cut out, cloſe to their origin, as explained below.

The winter-pruning of theſe trees, againſt walls and eſpaliers, may be performed any time from November to February, or March; obſerving that, as in theſe and moſt other ſpur-bearing trees, the ſame bearers continue fruitful many years, and increaſe in the number of fruit-ſpurs as they advance in length, not wanting a general renewal, as in trees bearing on the young wood only, ſuch as in Nectarines, Peaches, &c. the general branches are therefore to be continued from year to year, as long as they remain prolific, or well furniſhed with a due abundance of fruit-ſpurs for bearing; and only an occaſional ſupply of young wood is required, either to furniſh young trees under training, or in full-trained or old trees, to ſupply caſual vacancies, or replace any worn-out or unfruitful old branches, that either decay, or decline bearing.

So that in proceeding to the operation of winter-pruning theſe trees, examine both the general mother-branches, and the ſupply of young ſhoots retained thereon laſt ſummer; ſee if any caſual old bearer affect a worn-out, or any unfruitful or decayed ſtate, requiring to be retrenched, and their place ſupplied with young wood, this being the proper ſeaſon to make the neceſſary reform, both among the old and young branches, in the operation of pruning: at the ſame time ſee what young wood is wanted in any vacant part, or to replace any old wood as above; and let the requiſite ſupply of the beſt placed be accordingly ſelected and retained in the places required, cutting therefrom all the ſuperabundant and ill-placed ſhoots, cloſe to the mother-branches, not leaving any ſtumps or eye to ſhoot forth again: but carefully preſerve all the proper natural fruit-ſpurs of from half an inch to an inch or two long, and only cut away caſual decayed or worn-out unfruitful ones, or ſuch as aſſume a too projecting or rugged unſightly growth; which being cut off cloſe, new ones will often riſe, in or near the ſame place: likewiſe obſerve to retain occaſionally ſome well-ſituated, middling ſtrong ſhoots, in void ſpaces, below or near any apparently declining or ill-bearing branches in old trees,

to

to train up between to a good bearing ſtate, ready againſt the old is cut out, in a year or two after: and always, where room, retain the terminating or leading ſhoot, to each mother branch or bearer, till advanced to the utmoſt extent of their limited ſpace of walling, &c. both at ſides and top; and where any worn-out or decayed old branches, or too crouding bearers occur, prune them either entirely away, or cut them down, more or leſs, to ſome eligible fruitful branch, or young ſhoot; all of which branches and ſhoots ſtill leave entire, or unſhortened, as far as there is room to run them; and they will thus emit fruit-ſpurs along their ſides at every eye, to the very extremity.

As ſoon as a tree is winter-pruned, as above, let the branches and ſhoots be regularly arranged, and nailed to the wall, or tied to the eſpaliers, &c. horizontally, in exact order, five or ſix inches aſunder, at their full length, and all extended perfectly ſtraight, and equally on each ſide, no where croſſing the branches, but all trained parallel, and with the oppoſite branches of each ſide ranged in an equal direction.

As to the ſtandard Plums and Cherries, they want but very little pruning; they, in the firſt and ſecond year from the grafting and budding, while remaining in the nurſery, having their firſt ſhoots at a year old pruned down in March to a few eyes, to force out lower collaterals to form the head of a more ſpreading growth; and being then planted out finally, permit them to branch out around in their natural way; except occaſionally to reduce to order with the knife any conſiderable irregularity, ſuch as caſual long ramblers, low ſtragglers, of very rampant growth, croſs-placed branches, or ſuch as are too crouding, and decayed wood; but otherwiſe ſuffer all the general regular branches to advance to their full length, and they will furniſh fruit-ſpurs abundantly, and bear well.

The Great Wild Cherry-tree is ſometimes raiſed from the ſtones of the fruit; but the improved varieties ſhould always be propagated by grafting or budding, both to continue the ſorts more certainly, and that they may much ſooner arrive at the ſtate of proper bearers, which is the caſe with all fruit-trees; thoſe grafted, or budded, always bearing ſooner and better.

The Bullace and Sloe-Trees are propagated plenteouſly by ſowing the fruit or ſtones thereof an inch deep in autumn

autumn; they will come up in great abundance in the ſpring; the Sloe alſo by ſuckers from the root; though, in order to continue any deſired variety of Bullace, it is proper to propagate it by grafting or budding on ſeedling Bullace, Sloe, or Plum ſtocks, alſo by layers.

The Bird Cherry kinds, the Perfumed Cherry, and the other ſpecies ranging under that head, are propagated eaſily by ſowing the ſtones of the fruit in autumn, an inch deep; alſo by layers and cuttings of the young ſhoots; likewiſe by grafting and budding the approved varieties upon any ſort of the Bird Cherry or Common Cherry ſtocks. Though it is moſt commonly practiſed on the Perfumed Cherry in particular, but may alſo be performed with ſucceſs on any of the other ſorts.

Culture of the Apricot kind.

The Apricot requires to be cultivated principally as a wall-tree, planted againſt the beſt ſouth walls, in order both to defend its early and tender bloſſoms, and promote the ripening of the fruit in due perfection. Some ſorts may alſo be introduced as eſpalier trees, in ſunny expoſures, and as ſtandards in warm ſituations; ſuch particularly as the Breda and Bruſſels Apricot; and may likewiſe be trained as half and full-ſtandard wall-trees with fanned heads, to plant between the common dwarf wall-trees, to cover the upper part of the wall.

This tree bears principally on the young wood of a year old, and on caſual ſpurs ariſing on the two or three years wood; but you muſt depend moſtly on the young year-old ſhoots as the principal bearers; that, in training them as wall-trees, a general ſupply of every year's young wood muſt be every where retained for bearers, and an equal portion of old retrenched in winter-pruning; at which time it is alſo eligible to preſerve all the well-placed fruit-ſpurs, as hereafter.

The propagation of the Apricot is by budding the different varieties upon Plum ſtocks, raiſed from the ſtones of the fruit, or ſuckers of the root; and the ſtocks thus raiſed being ſet out in nurſery-rows, two feet and a half or a yard aſunder, for budding, which for common dwarfs, for walls, &c. will be fit to bud in a year or two: but, for half or full ſtandards, previouſly run them up to four, five, or ſix-feet ſtems; performing the budding in Auguſt, within a foot or

ſix

ſix inches of the bottom for dwarfs, and ſeveral feet high for half and full ſtandards. The bud will remain dormant till ſpring, when the head of the ſtock being cut off, it will ſhoot forth ſtrongly two or three feet long by next autumn; at which time, or in the winter or ſpring enſuing, you may tranſplant the young trees into the garden, to remain; or let them remain in the nurſery a year or two for training; obſerving in either caſe, that the firſt main ſhoots, produced as above from the budding, are to be be pruned, or headed down in March to ſix or ſeven eyes, to gain collaterals from the lower eyes the following ſummer, to form the head, as obſerved in Peaches and Nectarines, &c.

In planting them in the garden, the proper ſeaſon is November or December, or in February, or early in March: chuſe a ſouth and ſouth-eaſt and weſt ſituation, having a broad border properly prepared, by digging, and application of good dung. Plant the trees fifteen or eighteen feet diſtance, obſerving, if but year-old trees, and not headed in the nurſery, to perform it here in March, to gain collaterals to form a full head at firſt ſetting-off: but if the head is already formed, only prune out the irregular-placed, and the fore-right ſhoots; and after ſhortening the ſelect regular ſhoots to about two thirds of their natural length, train them in horizontally five or ſix inches aſunder, being careful to increaſe the number of branches annually till they cover the wall completely.

Every year the wall and eſpalier Apricots muſt be regularly pruned in ſummer and winter; and as theſe trees always bear principally on the young wood of a year old, a general ſupply of every year's ſhoots muſt be retained in each pruning, for ſucceſſional bearers; and a proportional part of the old wood retrenched in winter-pruning, to make room for the young ſupply. And, as they alſo bear upon ſhort fruit-ſpurs, half an inch or an inch long, riſing on the two or three years wood, theſe ſhould likewiſe be carefully preſerved for bearing, as explained under the article of Winter-pruning.

Commence the ſummer-pruning in May and June, to regulate the ſhoots of the year only; beginning the firſt operation early in May: when go over, and juſt rub off, or prune out cloſe, all the very irregular-placed young advancing wood-buds, when one, two, or three inches long, ariſing both on the former year's bearers, and on the ſeveral years old

old mother-branches; and which, if attended to early, as above, while the ſhoot buds are ſomewhat herbaceous, or before they become long and woody, may be effected expeditiouſly by rubbing them off cloſe, with the thumb: but otherwiſe it muſt be effected with the pruning-knife: ſo take off cloſe, all the fore-right ſhoots, riſing immediately from the front of the branches, in general; and diſplace alſo any other evidently very ill-placed buds; and thin ſuch as are conſiderably too abundant, of the regular-placed ſide-ſhoots.

In a fortnight, or month after, about the latter end of May, or beginning of June, when the general ſhoots of the year will be ſufficiently advanced in growth, to enable you to make a proper choice, go over the trees again, and give a more effectual reform, by pruning out with your knife all remaining ill-placed ſhoots, both fore-rights and others, ariſing in parts of the tree where they cannot be eligibly converted to uſe, or trained in with proper regularity; likewiſe prune out caſual very luxuriant rank ſhoots, as unfit for bearing; and alſo of the production of regular-placed ſide-ſhoots, of moderate growth, eligibly ſituated for training in with regularity, for next year's bearing-wood, that where too abundant, or conſiderably more than are wanted, or neceſſary to train for that purpoſe, prune out the worſt of the ſuperabundancy, in a thinning order, in moderation; carefully preſerving at the ſame time, a full ſupply of the beſt well-placed middling ſtrong growths thereof, in all parts of the tree, in regular order, quite from the bottom, upwards, all at their whole length, for training in till winter-pruning, to have plenty to chuſe from at that ſeaſon, to retain for next year's general fruit-bearers, as well as to produce future ſupplies of bearing-wood; for the ſame ſhoots both produce fruit, and ſucceſſional ſhoots at the ſame time: but obſerve commonly to diſplace all ſmall weak twigs, unleſs in places where no other occur, when only leave the ſtrongeſt thereof; and generally leave a good leading ſhoot to each main branch and bearer, to draw the nouriſhment more effectually through the whole length of them, to nouriſh the fruit, &c. in greater perfection. Likewiſe in the ſummer-pruning, if any good ſhoots occur towards the bottom of the tree, retain ſuch of them as appear neceſſary, both as bearers, and to furniſh occaſional future ſucceſſional bearing-wood; ſo that

the lower part, middle, and upper parts of the tree may be always eligibly filled with bearing-wood.

Be careful in retrenching the uſeleſs and unneceſſary ſummer ſhoots, generally to cut them out as cloſe as poſſible, without leaving any ſpur or ſtump of them, with eyes to ſhoot again the ſame year, which would crowd the trees with unſerviceable wood, and cauſe much trouble to retrench them; as muſt be done in this caſe.

Further obſerve, that in all the ſelect ſhoots, now retained for training, that have produced any lateral twigs, cut the ſaid twigs all clean off; but carefully preſerve the main ſhoots, at their full length, as before intimated, and continue them ſo all ſummer: for if ſhortened in that ſeaſon, during the time of their growth, it would only force out many lateral wood-ſhoots luxuriantly, from the lower eyes, the ſame ſummer; proving uſeleſs in themſelves, and hurtful to the eyes of the mother-ſhoots, by retarding their forming for bearing the following year, for which they are intended.

As ſometimes in theſe wall-trees, rank luxuriant ſhoots prevail here and there, that never form proper bearers, and often rob the more moderate ſhoots and fruit of their proper nouriſhment; they ſhould moſtly be cut out in the ſummer-pruning, as ſoon as diſcoverable; unleſs either any part of the trees apparently incline to affect a too vigorous growth, when ſome of the ſtrongeſt luxuriants may be retained in, or contiguous to thoſe parts, as waſte wood, and trained in between the main branches, to draw off the too-abundant ſap from taking place in general; afterwards cut them out, in winter-pruning following, if not then wanted; or, where a luxuriant ſhoot ariſes in, or near a vacant ſpace, where a farther ſupply of two or more ſhoots are neceſſary, it may be retained, and pruned ſhort early the ſame ſeaſon, in June, to a few buds; and it, inſtead of one ſtrong luxuriant, as in its original ſtate, will furniſh ſeveral collaterals the ſame ſummer, of more moderate growth, proper to train for bearers.

But if any tree aſſume a univerſally luxuriant ſtate, producing all the ſhoots of a vigorous rank growth, which never become eligible bearers, nor rarely produce proper bearing-wood, till reduced to a moderate ſtate; it is proper, in this caſe, to retain as many of the ſaid luxuri-

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ant ſhoots, in all parts of the tree, as can be commodiouſly trained in; even almoſt doubly thicker than the common rule of training, and all at their whole length, all ſummer; continuing this for a year or two, in order that, by laying in a greater number and extent of wood, of the above luxuriant nature, the redundant ſap may be more divided and exhauſted, than in a ſmaller quantity, thereby check the luxuriancy, and gradually reduce the tree, to a moderate habit of ſhooting, furniſhing middling ſtrong ſhoots, that will commence proper bearers. Afterwards, prune and train the tree in the common method.

Obſerving, in the above operations of ſummer dreſſing the Wall Apricot-Trees, that always retaining the general ſhoots, at their whole length, as before noticed, let them, as ſoon as of proper growth, ten or twelve inches long, be trained in cloſe and neatly to the wall, in regular parallel order; not croſſing them, where it can be poſſibly avoided; and according as they advance in length, ſtill continue them intire all ſummer, for the reaſons before explained.

After the general ſummer regulation of pruning and training, be careful both to diſplace all uſeleſs after-ſhoots; and if any of the former trained proper ſhoots ſtart, or project from the wall, adjuſt them in due time, keeping the whole always cloſe and regular, both to preſerve the regularity of the trees, and that the fruit may all equally enjoy the benefit of the ſun and free air, to promote its growth in the fulleſt perfection, agreeable to the intention of having the trees trained againſt walls, &c.

The winter-pruning of theſe wall trees, may be commenced ſoon after the fall of the leaf, in November, or December, &c. and continued occaſionally till February; when, in theſe early bloſſoming trees, it ſhould be entirely completed, as the bloſſom buds will then be ſo far advanced, as to be liable, many of them, to be diſplaced in pruning and nailing.

This pruning comprehends a general regulation among all the branches and ſhoots, both the young ſupply retained in ſummer, and the former year's bearers, and older branches; conſiſting of pruning out the ſuperabundant, and irregular-placed, and other uſeleſs ſhoots of laſt ſummer's production; and of retaining a general ſupply of the

beſt regular-placed, and apparently moſt fruitful thereof, in all parts of the tree, four, five or ſix inches aſunder, for ſucceſſional bearers the ſummer following; and to make room for which, a proportionable ſhare of the old wood, and laſt year's bearers, require to be pruned out in a regular order, in all parts, to admit of training the general bearers with proper regularity, the above diſtance, horizontally arranged.

But previous to the pruning, generally unnail from the wall moſt of the principal ſmaller branches, and all the young ſhoots; eſpecially as both a conſiderable portion of the old bearers, &c. are now to be pruned out, and a great deal of ſuperfluous and uſeleſs young wood; and that the branches being thus looſened from the wall, you will not only be better able to make a proper choice of the neceſſary ſupply of young ſhoots, eligible to retain for ſucceſſional bearers, but alſo have more liberty to uſe the knife in performing the neceſſary prunings, both among the young and old branches, as well as have the opportunity of new training the general branches and bearers, conformable to what may be retrenched, and what retained in the different parts of the trees.

Then, obſerving with regard to the operation of this general pruning, it is neceſſary previouſly to conſider, whether the tree is of a moderately ſtrong growth, or of a weakly ſtate, or of a luxuriant nature: and ſuppoſing the firſt caſe, as the moſt general, ſhall give the general directions accordingly; afterwards give ſome neceſſary hints in the other two circumſtances.

Keeping in mind, that the young ſhoots retained laſt ſummer, produced moſtly from that year's bearing-wood, being conſidered as the principal bearers the ſummer following; a general ſupply of the beſt-placed, and moſt promiſing ſide ones thereof muſt now be preſerved for bearers, in all parts of the tree, to be trained five or ſix inches diſtance, as before intimated; and from which, prune away all the ſuperabundant, the fore-rights, other ill-placed, and very luxuriant ſhoots, and ſmall twigs, cloſe to the old wood, unleſs it ſhall ſeem neceſſary to retain, and prune ſhort any particular ſhoots of theſe, to two or three eyes, to furniſh laterals, to ſupply any apparent future vacancy; being careful to retain for bearers, the middling

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ſtrong regular-growing ſhoots, that are beſt furniſhed with bloſſom buds, which are diſtinguiſhable by being round, plump, and ſwelling; the wood-buds being long, thin, and flattiſh. Obſerving alſo in wide vacancies, it is proper to retain ſome contiguous ſtrong ſhoots, to furniſh farther ſupplies of wood, both in old and young trees; all of which retained ſhoots, both bearers and others, are to be cleared from any lateral twigs produced, and each, leſs or more, ſhortened, as hereafter. And likewiſe, according as you proceed in the above, a proportionable part of the former bearers, and any caſual long naked old mother-branches, that do not furniſh young bearing-wood, as above, muſt now be cut out, agreeable to the rules hereafter explained, to make proper room to train the ſupply of ſucceſſional bearers, in regular order; and be careful to cut out all decayed wood, and old ſtumps.

Likewiſe obſerve, that as in theſe trees, the two or three years old branches often furniſh many natural fruit ſpurs, ſhort ſhoots of half an inch, or inch or two long, terminated by cluſters of bloſſom buds, productive of excellent fruit; and which ſpurs, where eligibly ſituated, ſhould be carefully preſerved for bearing; only pruning out ſuch as have become long, naked, and unſightly; or that project too conſiderably fore-right.

The general method to be obſerved in performing this pruning, is according to the following examples, viz.

That as many more ſhoots than are now wanted for bearers, were probably retained in the ſummer regulation, as then adviſed, in order to have abundance to chuſe from in this principal pruning ſeaſon; and which ſhoots being produced the greater part upon the laſt year's bearers, trained in the winter before; or ſome alſo on the two or three years branches: we muſt now, therefore, examine the number of ſhoots on each of the ſaid laſt year's bearers, &c. and remark the neceſſary ſupply proper to retain in proportion; ſome of which branches probably furniſh but one, others two, three, or more ſhoots; and of which, where only one of the beſt-placed appears ſufficient to retain on the old bearers, fix either upon the beſt of the lower or middle ones, and prune down the upper part of the old wood, to the ſelect ſhoot; cutting alſo away all other ſhoots below

that on the ſame old bearer, &c. if any, and are not wanted, the retained ſhoot now terminating the mother-branch; or if it ſhall ſeem proper to extend particular branches more in length; or to make more room for others advancing below, leave the beſt of the uppermoſt ſhoots on ſuch mother-branches, placed naturally at the termination thereof, if eligible; otherwiſe prune down the old bearer, &c. to the firſt beſt ſhoot, as above; and where two or more ſhoots ſeem requiſite to be retained on any laſt year's bearers, &c. leave the beſt of the lowermoſt, and that of theuppermoſt ones, the latter either placed naturally at the end; or if none are ſituated immediately at the termination of the old wood, prune the upper part of the old branch down to the firſt beſt upper ſhoot, that it may terminate the branch, as before obſerved; it being neceſſary every branch end in a young ſho t, for a leader, either naturally, or the branch pruned down thereto, as juſt adviſed; cutting away any intervening ſhoots between and below the ſelect ones; obſerving at the ſame time, as you advance in the above, to retrench all the ſuperfluous, ill-placed and other uſeleſs young wood of laſt ſummer; and prune out all lateral twigs produced on the ſides of the retained ſhoots, which directly ſhorten, by cutting off about one-fourth, third, or half, according to their ſtrength, leaving the ſtrong ſhoots the longeſt, as explained farther on.

Generally obſerving, in pruning out the ſuperfluous and uſeleſs young wood, as above, to cut them quite cloſe, not leaving any ſtump thereof, with eyes to ſhoot again next ſummer, except in particular parts, as before hinted, where wood will apparently be wanted, when ſome convenient ſhoots may be pruned to one, two, or three eyes, to furniſh wood, by way of a reſerve; and if not wanted next winter-pruning, they may then either be all cut out, or ſome ſhortened down, as juſt above-mentioned for the ſame purpoſe.

In the above manner proceed with the winter-pruning, through all the branches, retaining one or two ſhoots, or ſometimes more, in wide vacancies, on each of the ſeveral former years bearers, and occaſionally on different parts of the older wood, where neceſſary, ſo as to have every part equally furniſhed with bearers.

Alſo obſerve, in proceeeding in the above pruning, that where any of the mother branches, &c. are too crowded,

now

now is the time to regulate it, cutting out the moſt irregular-placed and unpromiſing.

And alſo, where any older branches, either main ſupporters, or others, furniſh no fruitful young wood, nor ſupport younger branches furniſhed therewith, or having advanced a conſiderable length, and producing only ſome towards the extreme parts, and are naked below, prune them down by degrees, either to the firſt great branch, well furniſhed with young fruitful wood, or to any lateral branch they ſupport, furniſhed with proper ſhoots, or to any ſtrong lateral ſhoot, puſhed forth in the lower parts the ſummer before.

Obſerve, that in the above general winter-pruning, the beſt ſhoots to retain for bearers are thoſe of middling robuſt, ſtraight growth; never the very rank luxuriant wood, nor any deformed ſhoots; and generally prefer thoſe with moderately-ſhort joints, to the very long-jointed ſhoots, with the eyes or buds far aſunder; and ſhould generally reject any very green ſappy imperfect ſhoots, more eſpecially the after-growths, or unripened autumnal wood, unleſs in parts of the tree where no other occur.

Likewiſe in performing the general winter-pruning, keep a good look out to ſee if any vacancies occur, or likely ſoon to happen, and retain contiguous ſhoots to furniſh them; and if any good ſhoots puſh out below, from the old wood, &c. examine whether they are wanted either for preſent uſe, or to furniſh a farther ſupply of wood, and retain them accordingly; and ſhortened more or leſs, to promote a farther increaſe of collaterals, if neceſſary, ſo as to have every part of the tree always provided with young wood, advancing in regular order from the bottom, to the extremeties thereof every way, as before obſerved, ranging horizontally five or ſix inches diſtance: but remarking, that if the preſent retained ſhoots in vacancies, as above, either in old or young trees, are not ſufficient to ſupply the vacant ſpecies, let them be ſhortened more in proportion than commonly practiſed in the bearing ſhoots, that they may more effectually produce the requiſite increaſe of new collaterals the enſuing ſummer.

The operation of ſhortening the general ſupply of ſhoots, now retained in winter-pruning theſe wall trees for next ſummer's bearers, ſhould be performed ſhoot and ſhoot, as you proceed

proceed in ſelecting and retaining them; and is neceſſary, in order to promote their producing more certainly a ſucceſſional ſupply of lateral ſhoots from the lower eyes the enſuing ſummer, for bearers the year after that; as the ſame ſhoots both produce their proper crop of fruit, and a ſucceſſion of young wood at the ſame time, for bearing next year; which always more certainly ariſe from the young year old wood, than the older branches; but if not ſhortened, are apt to run up naked below, produce ſhoots moſtly only towards the top, and by degrees, leave the lower part of the trees unfurniſhed with young wood for bearing: ſo generally in ſhortening, prune off about one-fourth, third, or half, as before hinted, in proportion to the ſtrength of the different ſhoots; and according as the bloſſom-buds are ſituated, higher or lower on the ſhoots, not to cut below all of them; they appear round and ſwelling; and commonly leave the ſtrong ſhoots longeſt; the others in proportion, from ſix, eight, or ten inches, to a foot, fifteen, or eighteen inches, to two feet long, or more; eſpecially very ſtrong growths, or of a luxuriant ſtate.

Generally in ſhortening, cut to a wood-bud, being long thin and flattiſh, either placed ſingly, or ſometimes at the ſame eye with a bloſſom-bud; or very generally where there are twin bloſſoms, a wood-bud appears between them; cutting behind, and a little above the bud; and thus each ſhoot will produce a terminating leader the following ſummer, that will draw nouriſhment more abundantly through the whole length of the bearers, to ſupport the growth of their reſpective fruit.

But in vacancies, and in young trees ſtill under training, the ſhoots deſigned to furniſh ſupplies of wood ſhould generally be pruned ſhorter than the fruit ſhoots, that they may more effectually produce the farther increaſe of wood required.

Or in weak-ſhooting trees, may occaſionally ſhorten the ſhoots alternately longer and ſhorter: the long principally to produce fruit, the ſhort chiefly wood: but in very weak-ſhooting, or declining trees, that produce only ſlender feeble ſhoots, and ſmall weakly twigs, incapable of yielding good crops of fruit, retain only the very beſt ſhoots, cut away all the very weakly growths; keep the remainder thin, and prune them ſhort, to encourage their producing ſtronger ſhoots next ſummer: continuing this

method

method for a year or two, or till they recover proper ſtrength.

But in rank, or luxuriant-ſhooting trees, that run greatly to ſtrong wood, without producing eligible crops of fruit, prune out all the very rankeſt ſhoots, retain the others doubly thicker than in moderate ſhooting trees, very little ſhortened, or ſome not at all; and they will thus, in a larger expanſion of wood, gradually exhauſt their exuberant nouriſhment in a year or two, and become better bearers.

Luxuriants, are ſuch rank ſhoots that are diſtinguiſhed from all the others of the ſame tree, by their ſingular thickneſs, colour, or ſometimes deformed growth, which, when of ſuch very augmented dimenſions, either in their great ſubſtance, or extraordinary length, &c. are never proper to train for bearers, having always a conſiderable tendency to the production of rank wood, and hardly any fruit, till reduced to a moderate degree of ſhooting, by proper management in the operation of pruning.

That where luxuriants, as above, caſually ariſe here and there in a tree, among the moderate ſhoots, &c. they being improper to train for bearers, where there is a ſufficiency of others, ſhould generally be pruned out cloſe, except where any occur in or near caſual vacancies, and there is no other, when ſome one or more may be retained and ſhortened, in order to furniſh ſeveral collaterals next ſummer, which, by dividing the ſap, will probably be of more moderate growth to train for bearers, or to produce fruit-bearing wood the year following: or, ſome may be occaſionally continued below, in particular parts, and pruned ſhort to furniſh more young wood, as a reſerve, in caſe of any unperceived vacancy occurring; or ſometimes, when luxuriancy prevails only in particular ſhoots, if any are produced below, or in any deficient parts of the trees, contiguous to caſual worn-out, or long naked old branches, neither producing immediate bearing-wood, nor ſupporting younger lateral branches properly furniſhed therewith, may occaſionally retain one or more in ſuch parts: ſhorten them half way, or more or leſs, according to the ſituation of them, or the ſupply of wood wanted; or whether required lower or higher, in the reſpective vacancies, to furniſh the ſpace required; ſo training them between the mother-

mother-branches; and that, inſtead of ſingle, long, naked rampant growths, each will divide into ſeveral more moderate-ſhooting middle-ſize collaterals the following ſummer, to train in, as above, to chuſe from next winter pruning, either for immediate bearers the ſummer following, or to furniſh farther ſupplies of wood, or for both purpoſes. Alſo, in any ſtrong-ſhooting trees, rather inclining towards a luxuriant ſtate, always leave the annual ſupply of ſhoots thicker in proportion than the common rule, and leſs ſhortened, and the tree will thereby much ſooner produce moderate ſhoots, proper for bearing.

If a tree ſhoots very unequally, or one ſide is much ſtronger, and better furniſhed with wood than the other, it is neceſſary to reduce the ſtrong ſide, both in the winter and ſummer-pruning, nearly equal to the other, in a gradual manner, to throw the ſap more abundantly to the weak ſide of the tree, that both ſides may advance in a proper equilibrium.

But as luxuriant growth often prevails in all parts of a tree, in the ſhoots in general, they ſhould be treated accordingly; in ſelecting the ſupply of ſhoots for bearers, retain the moſt promiſing and beſt-placed of the more moderate growths of the luxuriants, and one third, or doubly more in proportion than in the common order of training thoſe trees, cutting out cloſe all the moſt rampant, irregular, and ſuperabundant thereof; and let the reſerved ſupply be but very moderately ſhortened, or the moſt vigorous ſhoots not at all, except where ſituated in any vacant parts of the tree; then train them in, cloſe and regular; and next ſummer, when they have produced collaterals, retain alſo as many of the beſt-placed of theſe as can be commodiouſly laid in at their whole length, till the following winter-pruning; at which time, if luxuriance is ſtill rather predominant, practice nearly as before, in proportion: and thus by retaining the ſhoots more abundant, and at a more conſiderable length, and ſome intire, of the moſt luxuriant growths, the redundant ſap is divided, and gradually exhauſts itſelf among a larger expanſion, and extent of wood, which, by degrees, checks the general luxuriance that would otherwiſe continue among a ſmaller portion, and leſs extenſion of branches; and in a year or two the trees will commence mode-

rate

rate ſhooters, and eligible bearers; then they are to be pruned and managed in the common method before directed.

Very weak ſhoots, and ſmall twigs never form eligible bearers in theſe trees, ſo as to produce both good fruit, and ſucceſſional ſupplies of bearing-wood; that where a ſufficiency of ſtronger growths occur, generally cut theſe weakly twigs clean out, unleſs any ſhall appear ſerviceable hereafter to furniſh wood, either in preſent, or apparent future vacancies, when ſome may occaſionally be continued, and pruned to one, two, or three eyes, to produce the like number of ſtronger collaterals the ſummer following; and of which, retaining the beſt, prune the reſt away; and the others remaining till winter, ſelect what are wanted, and cut out the others; or ſome of which being retained, may be pruned ſhort, as before, as a reſerve to produce future ſupplies of young wood, in caſe of unforeſeen vacancies.

Where infirm, or ſickly trees occur, happening either through defects of the root, old age, blight, falſe-pruning, or other cauſes, producing only weak, ſickly, and ſometimes deformed ſhoots; that as they never bear well in that ſtate, examine the roots, by opening the earth without diſturbing the tree: if any vermin appear, clear them away, for they are ſometimes the cauſe of the malady. Alſo cut off any decayed or cankery roots; and of the remainder, prune the ends of as many of the extreme ones as convenient, cutting them ſloping on the under-ſide, then removing away part of the old earth, without diſturbing the principal roots, fill up the ſpace with ſome freſh rich earth, or good loam, ſettling it cloſe with a pot or two of water; and then prune the heads of the trees: cut out the very feeble growths; thin the others conſiderably, and prune them ſhort; and if the tree is recoverable, it will ſhoot ſtrongly the following ſummer.

In the general pruning of theſe trees, if, of the ſhoots proper to retain for bearers, &c. two or more are anywhere produced from the ſame eye, it is proper to leave but one; that which is the beſt, and well-placed; cut the others off cloſe.

As ſoon as one tree is winter-pruned, agreeable to the foregoing directions, let it be directly nailed to the wall, in regular order, arranging the branches more or leſs horizontally;

zontally; the lower ones firſt, proceeding with the others parallel to theſe, five or ſix inches aſunder, extended as ſtraight as poſſible, cloſe to the wall, &c. obſerving if any have been left too cloſe in pruning, let the nailor cut out the moſt irregular thereof; and let the nailing be performed with proper garden-nails, ſhort and robuſt, and with neatly-cut ſhreds; not to appear with long dangling ends.

We have rather been copious in the foregoing general directions, in the operations of winter-pruning the Wall-Apricots, with deſign to ſerve alſo as general hints in pruning other wall-trees, particularly thoſe bearing on the year-old wood; and more eſpecially Peaches and Nectarines, as in which, pretty nearly the ſame method may be obſerved: alſo in other wall-trees, either where weakneſs, luxuriancy, or infirmity prevails.

Defending the bloſſom and young fruit.

Wall-Apricot trees, when in bloſſom, ſhould be defended in unfavourable ſprings; eſpecially as they bloſſom early in that ſeaſon, February, or beginning of March, when cutting blaſts, and ſharp froſts often prevail; and; it is adviſeable to afford the bloſſom and young ſetting fruit in embryo, of the principal kinds, occaſional protection, either of large garden mats nailed up before the trees, on nights, in ſharp froſty weather; or have cuttings of the ſmall branches of evergreens furniſhed with the leaves, and ſtick them between the branches, ſo that the leaves may afford ſome ſhelter to the bloſſom, and infant fruit; permitting theſe to remain conſtantly night and day, till the fruit is all fairly ſet as big as large peas: but the mats are only to be uſed in froſty nights, or occaſionally to remain on days when very ſevere: but otherwiſe putting them up in froſty evenings, take them down in the morning.

Or in trees not defended, if the young newly-ſet fruit is attacked with a ſharp hoar-froſt, it is of utility in a morning, before the ſun ſhines out, to daſh ſome of the trees, of the prime ſorts, with water, out of a hand-engine, to waſh off the froſty rime, otherwiſe the ſun is apt to make the young fruit turn black, and decay.

Of training them in Eſpaliers and Standards.

Apricot-trees may alſo be trained ſucceſsfully in Eſpaliers and Standards, to produce ſucceſſional crops of fruit, to ſucceed

ſucceed thoſe of the wall-trees; or in default of proper walls, it is neceſſary to hint, that they will ſucceed, as above; more particularly the *Breda* and *Bruſſels* Apricots.

For Eſpaliers, may try any of the varieties of Apricots; but more generally the two ſorts juſt above-mentioned; and for which purpoſe, let any of the ſorts intended, be trained as directed for the wall-trees, with ſhort ſtems, not exceeding eight, ten, or twelve inches, branching out low to furniſh the Eſpalier regularly, quite from the bottom to the top, with bearers ranged horizontally, five or ſix inches aſunder, in the wall-tree order, and which will require pruning every ſummer and winter, exactly as directed in pruning the Wall-Apricots.

Standard Apricot-trees alſo deſerve culture, as they often produce good crops of fruit, arriving at maturity in ſucceſſion to the wall and eſpalier Apricots; and the moſt eligible for this purpoſe are the *Breda* and *Bruſſels* kinds, which are firm high-flavoured fruit.

Generally train ſome of each, both in half and full ſtandards, with ſingle clean ſtems, of from four or five, to ſix-feet high, branching out at that height into full heads; and plant them either in the kitchen garden, orchard, or pleaſure-ground, in a ſomewhat defended ſituation, well expoſed to the full ſun; permitting their heads to branch out freely around, nearly in their natural order, without any other pruning than juſt to retrench any irregular, or croſs-placed, and too-crouded ſhoots and branches, both in their early and more advanced growth; and occaſionally to reform long ramblers, and low ſtragglers; and to cut out any ſingular luxuriants: but let all the other general branches and ſhoots take their natural growth; they will furniſh eligible ſupplies of bearing-ſhoots, numerous fruit ſpurs, and yield plentiful crops of good fruit in all favourable ſprings, that will ripen in fine perfection in Auguſt, &c.

Thinning the fruit.

Sometimes Apricot-trees, in general, ſet too crouded crops of fruit, in favourable ſeaſons, often produced thick in cluſters, and they ſhould be gradually thinned in their early minor ſtate, when the ſize of middling and full-grown gooſeberries, or but little more or leſs; being careful to retain the moſt promiſing and beſt-placed, in due

abundance, for a ſufficient crop to grow to maturity, about three, four, or five inches aſunder, according to the ſize the different varieties of the fruit attain; leaving them at ſuch proper diſtances to grow to full ſize, without preſſing againſt and thruſting one-another off in their advanced growth.

The thinned-off young fruit ſhould be carefully preſerved for making tarts, for which they are moſt excellent.

Culture of the Laurel kind.

Both the ſpecies of Laurel being fine large-leaved evergreens for ornament, deſerve a place in all ornamental plantations, and to diſpoſe in clumps in the ſhrubbery, and in lawns, parks, &c. and the Common Laurel particularly, is alſo well adapted to plant by way of a blind, to hide any diſagreeable object, or againſt naked unſightly walls, or to train hedge-faſhion, by way of ſhelter, &c. to particular compartments; and will grow almoſt any where, both in open and ſhady places, or under ſpreading trees in any common ſoil: may be trained both in a ſhrub-like manner, buſhy from the bottom; or with a ſingle clean ſtem, for ſtandards; and introduced not only for ornament, but alſo in foreſt-tree plantations; eſpecially the Common Laurel. They are eaſily propagated, both by ſeed and cuttings of the young ſhoots.

Sow the ſeed in autumn, about September or October, in beds of light earth, an inch deep, giving protection of mats, &c. from froſt; and when the plants are a year old, plant out the ſtrongeſt in nurſery beds.

Plant cuttings of the ſhoots of the year, in the end of Auguſt, and in September, in any ſhady border, ſtripping off the lower leaves, and inſert them two thirds in the ground, in rows, ſix or eight inches aſunder: give water directly, repeating it occaſionally in dry weather, till October; and probably ſome will be rooted the ſame year; and all of them completely the following ſummer, fit to plant in wider rows next autumn.

PTELEA, Shrub Trefoil. Of the claſs and order *Tetrandria monogynia.*

For this place, is one hardy deciduous flowering-ſhrub, from America, of eight or ten feet growth, with a branchy buſhy head, garniſhed with trifoliate, or three-lobed leaves, with

with ovate-lanced folioles; and the branches terminated by large bunches of whitiſh flowers, having four-parted cups, four ovate-lanceolete petals, four awl-ſhape ſtamina, with roundiſh anthera, a roundiſh compreſſed germen, ſupporting a ſhort ſtyle, crowned by two obtuſe ſtigmas; the germen becomes a roundiſh two-celled pericarpium, with two ſeeds.

The ſpecies is,

PTELEA *trifoliata*, Trifoliate American Ptelea, or Shrub Trefoil. *(Leaves ternate, or of three folioles.)*

Propagate it by ſeeds, ſuckers, layers, cuttings, in ſpring and autumn.

PUNICA, POMEGRANATE-TREE. Of the claſs and order *Icoſandria monogynia*.

Conſiſts of, for this place, a curious exotic tree, of the ſouthern warm parts of Europe; retained in our gardens principally for variety and ornament, and ſometimes as a wall fruit-tree; is of moderate growth, garniſhed with ſpear-ſhape leaves, and elegant bunches of ornamental red flowers, furniſhed with bell-ſhaped five-cleft cups, five roundiſh petals, numerous ſtamina, roundiſh germen, and one ſtyle, ſucceeded by a large roundiſh apple-ſhaped fruit, of many cells, filled with ſucculent pulp and roundiſh ſeeds, like grains; very delicious to eat.

The hardy ſpecies is,

PUNICA *Granata*, *(Granata,)* or, Pomegranate-Tree. *(A tree ſtem, and ſpear-ſhaped leaves.)* A native of Spain and Italy, &c. but ſometimes ripens its fruit in England againſt a warm wall.

Varieties.

Common ſingle-flowered Pomegranate.

Double-flowered Pomegranate.

It may be planted as a fruit-tree, and for ornament, againſt a good ſouth wall, the branches being trained thereto regularly, like other wall-trees; and it will flower very ornamentally, and often produce its large beautiful fruit in tolerable perfection; but more certain and effectual if occaſionally defended with glaſs frames in cold nights in ſpring, and bad weather in ſummer and autumn.

But it has alſo great merit as an ornamental flowering-tree, trained as half-ſtandards for adorning the ſhrubbery ſwith its elegant bunches of flowers, which, in the double ort particularly, are large and of ſingular beauty.

Propagate it abundantly by layers, in autumn or ſpring, by ſlit-laying the young ſhoots and branches.

PYRUS, PEAR-TREE, APPLE-TREE, and QUINCE. Of the claſs and order *Icoſandria pentandria*.

This eminent genus *Pyrus* comprehends the Pear-tree as the principal, and the Apple and Quince-tree, all diſtinct ſpecies; compriſing conſiderable varieties in the two former particularly, and are moſt valuable fruit-trees, with oval alternate leaves; and white and whitiſh-red flowers, in umbellate cluſters, and ſingly, from the ſides and ends of the branches; having monophyllous concave five-lobed cups, five large concave petals, twenty or more ſtamina, a roundiſh germen with one ſtyle; and the germen ſucceeds to a large roundiſh and top-ſhaped fruit of five cells, with five oblong ſeeds or kernels.

The ſpecies are,

PEAR KINDS,

Conſiſting of one parent ſpecies; compriſing a great number of fine varieties of the fruit, viz.

PYRUS *communis*, Common Pear-Tree, *(Oval, ſawed leaves, and a corymbus of flowers having foot-ſtalks;)* producing oblongiſh-top-ſhape and roundiſh fruit, ripening from July until October, &c. in the different varieties.

Varieties of the tree.

Double-bloſſom Pear.

Striped-leaved.

Twice-flowering.

The varieties of the fruit comprehend Summer, Autumn, and Winter Pears: the Summer Pears being ſuch as ripen for eating immediately off the trees, from about the beginning, or middle of July, till the end of Auguſt, or beginning, or middle of September, and will not keep long; ſome but a few days, others not above a week, or fortnight at moſt. Autumn Pears are thoſe which ripen both on the trees, and after being gathered, from about the beginning, or middle of September, till the end of October; and which, in the different varieties, will keep from about a fortnight, to a month or ſix weeks, after they are gathered at full growth. And Winter Pears are ſuch as arrive to full growth in October, but which do not attain mature perfection for eating, until after they are gathered, and have been in the fruitery from about a month or ſix weeks, to two, three, or four months,

months, or more, as appear below in the different times of ripening, annexed to the names of the different varieties, both of the Summer, Autumn, and Winter Pears, in the following regiſter thereof; known in the different nurſeries &c by theſe names, viz.

† *Little Muſk Pear, or Supreme* (July.)
† *Primitive Pear* (July, Auguſt.)
† *Green Chiſſel Pear* ———.
† *Citron des Carmes* (Auguſt.)
† *Red Muſcadelle* ———.
† *Avorat or Auguſt Muſcat* ———.
† *Jargonelle*, ſo called, but more properly *Cuiſſe-Madam, (Lady's Thigh)* ———.
† *Cuiſſe-Madame*, ſo called, but more properly *Jargonelle* ———.
Windſor Pear, a variety of, and much reſembling the *Cuiſſe-Madame*, but rather ſhorter, and more ſwelling upward ———.
Orange Muſcat ———.
† *Great Blanquette Pear* ———.
Little Blanquette Pear ———.
Caſſolette Pear ———.
† *Early Ruſſelete* ———.
† *Perfumed Pear* ———.
Pouchet Pear ———.
† *Red Orange Pear* ———.
† *Muſk Robin* (end Auguſt and September.)
Muſk Drone Pear ———.
Onion Pear ———.
† *Summer Bergamot* ———.
† *Summer Bon-chrétien* (September, October.)
† *Autumn Bergamot* ———.
† *Hamden's Bergamot* ———.
† *Salviati Pear* ———.
Scotch Bergamot ———.
† *Auchin Pear* ———.
Pear Piper ———.
Green Muſk Pear ———.
Beſideri Pear ———.
† *Roſe-water Pear* ———.
Autumn Ruſſelete ———.
Red Admirable ———.

Long-ſtalked Blanquette (September.)
St. James's Pear ———.
† *Orange Bergamot* ———.
Prince Pear ———.
Lemon Pear ———.
Crawford Pear ———.
Swiſs Bergamot (end September and October.)
† *Swan-egg Pear* (October, &c.)
† *Brown Beurre Pear* ———.
† *White Beurre Pear* ———.
Red Beurre Pear ———.
† *Green Sugar Pear* ———.
† *Meſſieure Jean*, commonly called *Monſieur John* ———.
Beurre Bergamot ———.
French Bergamot ———.
† *Autumn verte longue* ———.
† *Brocas's Bergamot* ———.
† *Gray-Good-Wife* ———.
Rouſſeline Pear ———.
Poir-Pendar, or *Knaves Pear* ———.
Chat Brule, or *Burnt Cat* ———.
† *Ganſel's Bergamot* ———.
Muſcat Fleury ———.
Dean Pear ———.
Vicar Pear ———.
† *Craſanne*, or *Craſann Pear* (Oct. Nov. Dec.)
† *Marquis Pear* ———.
Dauphin Pear (November, December.)
† *Virgoleuſe* (November, December, January, &c.)
† *St. Germain Pear* ———.
† *Spaniſh Bon-chrétien* ———.
† *Colmar Pear* ———.
Wonder of Winter ———.
Beſi d'Caſſoy ———.
† *Chautea du Roy Bergamot* ———.
Carmelite Pear ———.
Winter Ruſſelet ———.
† *Echaſſerie*, or *Winter Green Sugar Pear* ———.
† *Seven-elbowed Portugal Pear* ———.
Beſſi Chaumontelle (December to March.)
† *Winter Bon-chretien* (Jan. Feb. March, till May.)
† *Winter Beurre* (December, January, &c.)

† *Winter*

† *Winter Verte longue* (December, January, &c.)
† *Winter Bergamot* (November to January, &c.)
Martin Sec, or *Dry Martin Pear* ———.
† *St. Martial*, or *Poire Douce* (Jan. Feb. to May.)
German Muſcat ———.
Martin Sire, or *Lord Martin Pear* (Dec. Jan. &c.)
Good Lewis (December, January, &c.)
Ambrette ———.
St. Auſtin ———.
Winter Ruſſelete (January, February, &c.)
† *Epine d'Hyver*, or *Winter Thorn* (Feb. March, &c.)
† *Holland Bergamot* (March, April, &c.)
Eaſter Bergamot ———.
† *Eaſter Saint Germain* ———.

Baking and Stewing Kinds,

Moſtly very large, but generally too hard and unpalatable to eat till improved by culinary preparation.

Cadillac Pear (November, December, till April.)
Great Black Pear of Worceſter, Warden or Pound Pear ——.
Union, or Uvedale's, St. Germain Pear ———.
Double-flowered Pear ———.
Winter-Citron Pear ———.
Blood-Pear ———.

Alſo may bake or ſtew any other large winter kinds, &c. ſuch as

Winter Bon-chrétion (November, December, till April.)
Winter Thorn ———.
Holland Bergamot ———.
Good Lewis (December, January.)
Spaniſh Bon-chretien, &c. ———.

Of the above liſt of Pears, thoſe marked thus, † are the moſt deſirable for principal culture: but in extenſive premiſes of gardens, and orchard ground, a larger variety might be introduced, of all the different ſorts in the above catalogue; young trees of moſt of which are cultivated for ſale, in the nurſery gardens, both in ſtandards, wall-trees, and eſpaliers: the ſtandards, for large ſupplies of all ſorts; and in eſpaliers, and wall-trees, for ſome of the capital varieties,

varieties, to have them earlier, and of an improved ſize, beauty, and flavour.—*See their culture, page* 143.

PYRUS MALUS, or *Apple Kinds.*

Compriſing three ſpecies; one parent ſpecies of the Common Apple (ſuppoſed originally the Crab) furniſhing numerous excellent varieties of the fruit, arriving at full growth for eating and culinary uſe, from July until the end of October; and the late kinds keep good all winter until the arrival of new Apples next ſummer; and two ornamental ſpecies, for the ſhrubbery.

2 PYRUS *Malus, (Malus)* or Apple-Tree, *(Oval, ſawed leaves, and umbels of flowers ſitting cloſe.)*

Varieties of the trees.

Wild Crab Apple of the woods and hedges.

Cultivated Apple-trees of the gardens.

Double-flowered Apple.

Fig Apple-tree, with ſmall, fugacious or quick-fading flowers.

Paradiſe or Dwarf Apple tree.

Varieties of the fruit of the cultivated Apple, are numerous; attaining perfection for uſe, immediately off the trees, from June or July, till October, in the ſummer and autumn kinds; and in the winter, or keeping Apples, arriving at full growth in October, and being then gathered, continue in perfection, in the different varieties, all winter and ſpring, and till ſucceeded by new Apples the following year; and conſiſts of the following varieties.—Thoſe marked thus, † are the moſt eſteemed:

— *Gennetting*, or *June-eating* (end of June and in July, againſt a ſouth wall: in ſtandards in Auguſt.)
— † *Margaret Apple* (Beginning Auguſt.)
— † *Codlin* (July, Auguſt, September.)
† *Dutch Codlin* (Auguſt, September.)
† *Summer Pearmain* ———.
— † *Summer Colville* ———.
† *Summer Rembourge* ———.
Summer Ruſſet ———.
Summer Stubbard ———.
— † *Golden Ruſſet* (September, October, November.)

† *Red*

† *Red Autumn Colville* (September, October, November.)
† *White Autumn Colville* ———.
† *None-ſuch* ———.
Autumn Ruſſet, or *Ruſco* ———.
† *Kentiſh Codlin* ———.
† *Loans Pearmain* ———.
† *Lemon Pippin* (September, October, November.)
† *Scarlet Pearmain* ———.
† *White Coſtin* ———.
† *Quince Apple* ———.
Violet Apple ———.
† *Royal Pearmain* ———.
Tranſparent Apple (September, October, &c.)
Pomme d'Api ———.
Summer Pippin ———.
Aniſe Apple ———.
Virgin Apple ———.
† *Golden Rennet* (October, November, till March, &c.)
Golden Pippin ———.
† *Lord Hay's Golden Pippin* ———.
† *Aromatic Pippin* ———.
† *Royal Grey Ruſſet* ———.
† *Nonpareil* (November, December, till Spring.)
† *Large Green Nonpareil* ———.
† *Winter Pearmain* ———.
† *Wheeler's Ruſſet* (all Winter and Spring.)
† *Holland Pippin* (Oct. Nov. till March, April, &c.)
† *Kentiſh Pippin* ———.
† *Pile's Ruſſet* ———.
† *Stone Pippin* (all Winter, Spring, till May or June.)
† *John Apple.* ———.
† *Lawman's Apple* ———.
† *Cat's Head* (October, November, &c.)
† *Newton Pippin* (October to February, January, &c.)
† *Spitſenberg Apple* (Nov. Dec. to April or May.)
Leather-coat Ruſſet. ———.
† *Norfolk Beeffin* (November to February, January.)
† *Grey Leadington* (October, November, &c.)
Spencer's Pippin (October, November to Spring.)
Pipy Ruſſet ———.
Achlam Ruſſet ———.
† *Margill Apple* ———.

† *French*

† *French Pippin* (October, November, to Spring.)
Norfolk Storing ———.
† *Monſtrous Rennet* (Oct. Nov. Dec. &c.)
† *Kitchen Rennet* ———.
White Rennet ———.
† *Barnard's Baking Apple* (Oct. Nov. Dec. &c.)
Glory of the Weſt Apple ———.
American Apple ———.
† *Aromatic Ruſſet* ———.
† *Herefordſhire Pearmain* ———.
† *Rennet Griſe* ———.
† *Embroidered Apple* ———.
† *Queen Charlotte Apple* ———.
† *Cour-Pendu*, or *Hanging-Body* ———.
† *Kirton Pippin* ———.
Winter Greening ———.
Black Pippin ———.
Partridge Apple ———.
† *Coſtard Apple* ———.
† *Winter Rembourge* ———.
Pomme d'Roi ———.
Gilliflower Apple ———.
Salmon Apple ———.
Kentiſh Wilding ———.
Norfolk Paradiſe ———.
Two year's Apple; hanging on the trees till the ſecond year; valued chiefly as a curioſity.

Principal Cyder-Apples.

Redſtreak Apple (October, November, &c.)
Herefordſhire Underleaf ———.
White ſour ———.
Gennet Moyle ———.
Devonſhire Royal Wilding ———.
Everlaſting Hanger ———.
John Apple ———.
Woodcocks ———.
Fox Whelps ———.
Black Moor-Apple ———.
Styre Apple ———.
Royal Wilding ———.

Of

Of the above varieties of Apples, thoſe diſtinguiſhed by a mark thus, † are the beſt ſort; though moſt of the others are good: obſerving, that notwithſtanding ſome are ſelected as principal Cyder-Apples, any of the other varieties may alſo be promiſcuouſly employed for that purpoſe, where plentiful to ſpare, from other occaſions; and for kitchen uſes, moſt of the Codlins, Rennets, Ruſſets, Pearmains, and large Pippins, and other large kinds, are proper; but for eating as deſert-fruit, allot a due portion of the beſt, middling, and ſmaller kinds; ſuch as the Golden Rennets, Golden Pippins, Nonpareils, &c. though many of the larger ſorts are alſo good deſert Apples.

3. PYRUS *coronaria*, Sweet-ſcented Virginia Crab-Tree. *(Narrow angulated ſawed leaves and umbellous flowers, having footſtalks.*

Variety.

(Carolinienſis,) Carolina ever-green Crab-Tree.

4. PYRUS *baccata*, or Berried-fruited Siberian Crab. *(Leaves ſawed, crowded peduncles, apples berried.)*

Theſe are propagated by layers and cuttings, and occaſionally by grafting on any Apple ſtocks; by all of which the varieties may be continued diſtinct.

PYRUS CYDONIA, or *Quince Kinds.*

5. PYRUS *Cydonia (Cydonia)* or Quince-Tree. *(Oval entire leaves, hoary underneath.)*

Its flowers grow ſingly, and are ſucceeded by large, golden yellow fruit, for baking, ſtewing, and marmalade.

Varieties,

Apple-ſhaped Quince.
Pear-ſhaped Quince.
Portugal Quince.
Eatable Quince, (that may be eaten raw.)

Thus far finiſhes the ſpecies and numerous varieties of *Pyrus*, and next follows the culture of the different ſorts.

Firſt obſerve, that notwithſtanding in the two ſpecies, Pear and Apple, numerous varieties of the fruit are arranged under each; they furniſh many more of leſs note; and thoſe here inſerted, are more than are generally cultivated in

in any one collection: but as young trees, of moſt of the varieties, are to be met with with in different nurſery-grounds, for ſale, as well as full-grown trees thereof, in garden and orchard plantations, in different parts of the kingdom, I choſe to mention them for the uſe of thoſe fond of a large variety; and at the ſame time, to remark, that moſt of the eminent nurſery-men have full collections of the principal varieties, with catalogues thereof, whereby you can readily point out the moſt deſirable ſorts, according to the above marks, † affixed to their names; and in extenſive premiſes, in gardens and orchards, &c. may have a full collection of the principal ſorts; or as many as may be approved of, or can be procured, if a conſiderable variety is required: but in moderate gardens, &c. ſhould be content with a ſmaller portion of the very beſt ſorts, that attain perfection in the different ſeaſons; having them principally in ſtandards, and half ſtandards, for the general ſupply: ſome of the fineſt ſorts in eſpaliers; and a few trees of the early and choice ſorts, againſt ſouth walls, to obtain the fruit earlier, and of an improved flavour; but more abundantly the Pears of the moſt eminent varieties.—*See the culture, following:* comprehending that of the Pear and Apple, together, as being ſimilar in their nature of growth, and mode of bearing, whereby one method of cultivation is applicable to both the ſpecies, in all their reſpective varieties.

Culture of the Pear and Apple.

As the Pear and Apple aſſume nearly the ſame order of growth, and mode of bearing, the ſame culture will anſwer for both ſorts, and ſhall treat of them accordingly, under one general head.

The Pear and Apple produce their fruit upon ſhort ſpurs on the ſides and ends of the branches, of from two, three, or four, to many years old, the ſame branches and fruit ſpurs continuing long in fruitfulneſs; and that as they bear only on ſpurs, ſhort robuſt ſhoots, half an inch, or an inch or two long, formed firſt towards the extreme parts of the young branches, then gradually along the ſides, the branches muſt not in the common courſe of pruning be ſhortened, which would cut off the firſt fruitful parts, as well as force out uſeleſs collateral wood ſhoots, inſtead of forming fruit ſpurs.

Both

Both theſe trees, in their different varieties, are trained generally as full ſtandards for the principal ſupply; and the Pears alſo as wall-trees, and eſpaliers; the apples likewiſe in eſpaliers, rarely againſt walls, except juſt a tree or two of the beſt early ſummer and autumn eating kinds; alſo ſome Golden Pippins, &c. to have them earlier ripe, and of an improved flavour.

In ſtandards however, for the general plantation, ſhould be principally full ſtandards, with ſix feet ſtems, and planted in gardens and orchards, in rows thirty or forty feet aſunder; likewiſe ſome quarter and half ſtandards, with two, three, or four feet ſtems, grafted &c. on dwarf ſtocks, may be introduced in gardens, where moderate trees are required; but always full ſtandards, grafted or budded on free-growing ſtocks, elevating the head, conſiderably from the ground, are proper for the main plantations.

Some may alſo be trained as dwarf ſtandards for variety, with one, two, or three feet ſtems.

For walls and eſpaliers, chuſe young trees of ſome of the capital varieties, trained with ſhort ſtems, having the branches advancing from within a little of the bottom, equally arranged to the right and left, in a regular fan-like expanſion: they will produce larger and better flavoured fruit than in ſtandards; planting them twenty or twenty-four feet aſunder and the branches arranged horizontally ſix inches aſunder, always at full length, not ſhortening the ſhoots, except when they extend out of bounds.

Pears of all the varieties may be trained for ſtandards, but chuſe principally the capital ſorts for walls and eſpaliers which will greatly improve their ſize and goodneſs: a few only of the ſummer Pears, more of the autumn varieties, and a larger ſupply of the principal winter kinds, planting them againſt ſoutherly and weſt, and eaſt walls, to have plenty of ſun to accelerate the growth of the fruit, and enrich its flavor; which is more particularly neceſſary for the improvement of the autumn and winter Pears.

Apples likewiſe ſucceed abundantly well, both in full and half ſtandards, for the general ſupply, and in eſpaliers; may admit any of the varieties in ſtandards; but ſelect the prime ſorts for eſpalier training, in which the fruit will improve exceedingly in ſize, beauty, and quality.

For the ſhrubbery, may employ the Double bloſſomed Pear, Twice-flowering, and Striped-leaved Pear; Double-bloſſom Apple, Fig Apple, Two-year Apple, Paradiſe Apple, Sweet-ſcented Virginia Crab, Ever-green Carolina Crab, Siberian Crab, and the Wild Crab of our woods and hedges; as alſo any of the cultivated Apple and Pear kinds, introduced for variety; they will all flower ornamentally in ſpring, and their fruit will make an agreeable diverſity in its growth.

The propagation of Pears and Apples is by grafting and budding the approved varieties upon any kind of their reſpective ſtocks raiſed from the kernels of the fruit; Pears upon their own kinds, or upon Quince ſtocks; and Apples upon the Wild Crab ſtock, or that of any of the Apple tribe of the ſame genus; and for dwarfing the trees for ſmaller purpoſes may graft the Pear on Quinces, and the Apple on Codlin or Paradiſe ſtocks, raiſed from layers, cuttings, and by ſuckers from the roots.

Obſerve, that to have full ſized trees, both in ſtandards, and for walls, and eſpaliers, they muſt be worked on free ſtocks; and for which purpoſe, you ſhould raiſe a quantity of ſtocks from the kernels of the different varieties of the fruit, ſowed in autumn, winter, or ſpring, in four feet wide beds, an inch deep; and the ſeedling plants when a year or two old, planted out in nurſery rows two feet and half aſunder, training them with ſingle ſtems, ſeveral feet high for ſtandards, and lower for wall and eſpalier trees to be grafted near the ground; theſe ſtocks raiſed from the kernels of the fruit indifferently, generally grow freely to a tall, large ſize, are called free ſtocks; and are proper on which to graft trees deſigned to be raiſed to a full growth.

But when deſigned to have any of the Pear or Apple-trees of moderate growth for ſmall gardens, or take up but as little room as poſſible, either ſtandards, wall or eſpalier-trees, they ſhould be grafted, &c. on dwarf ſtocks; ſuch as the Pear on Quince ſtocks, the Apple on Codlins, or to have very dwarf-trees, work the Apples on Paradiſe ſtocks; and all of which ſtocks, for this purpoſe are raiſed from cuttings, layers, and ſuckers; but the Codlin particularly, very abundantly from ſuckers.

Perform the grafting in ſpring, February and March, procuring cuttings of the young ſhoots of laſt ſummer, from the trees of the deſirable varieties, cut five or ſix inches long;

long; and to inſert one in each ſtock, either by whip grafting them, if ſmall ſtocks, or ſlit grafting on ſtocks of an inch or more thick, at from three or four to five or ſix feet for half and full ſtandards, or at one, two, or three feet height for dwarf ſtandards; or ſtandards in general may be grafted or budded near the bottom, and the firſt beſt ſhoot run up for a ſtem; but for dwarfs for common wall and eſpalier-trees, graft them within a foot or ſix inches of the bottom, unleſs any are intended as half or full ſtandard wall-trees, when they muſt be worked at the height you intend forming the ſtem; the grafts will all ſhoot the ſame year, and form the new tree by the next autumn, when if required, may tranſplant them where they are always to ſtand, or remain for training in the nurſery a year or two longer.

The propagating them by budding, which is more applicable to Pears that Apples, is performed in the end of June, July, and beginning of Auguſt; when, procuring young ſhoots of the ſame year, from the trees of the deſired ſorts, and from which ſhoots to take the buds for budding, inſerting one in each ſtock, at the heights directed for the grafting. They will remain dormant till ſpring; then will puſh forth each one ſtrong ſhoot.

It ſhould be remarked, that it is proper, both in the grafted and budded young trees, to prune ſhort the firſt ſhoots when a year old in the ſpring, to three or four eyes or buds, to force out ſhoots below, to form a more regular and full head from the beginning; which, in the wall and eſpalier trees particularly, may be repeated on the ſecond year's ſhoots, either pinched to a few eyes, early in the ſame ſummer they are produced, or pruned next ſpring, if it ſhall ſeem neceſſary, in order to obtain a larger ſupply of bottom branches proper to furniſh the head with others regularly upward, diſplacing fore-right and other ill-placed ſhoots from the front and back of the branches, and train the other regular ones for bearers, five or ſix inches aſunder at their full length.

When however the young trees have formed heads, of from one or two, to three, four or more years old, let them be planted where intended, any time from November till March, in open weather, diſpoſing the full ſtandard thirty or forty feet diſtance in the garden or orchard, or where re-

quired; the half ſtandards twenty or thirty feet aſunder; and the wall and eſpalier pears on free ſtocks, not leſs than twenty, but if twenty-five-feet aſunder, they will effectually cover that ſpace and be more fruitful than if confined to leſs room; and Apples in eſpaliers, on free ſtocks, plant twenty-feet aſunder, at leaſt; but for the trees worked on dwarf ſtocks, eighteen feet may be ſufficient room, and Apples on the Paradiſe ſtocks may be planted only fifteen feet aſunder.

In the wide ſpaces between the wall or eſpalier Pears and Apples, may plant Cherries, Plums, Currants, Apricots, Vines, &c. to fill up the ſpace, and bear for a few years; then cutting them away gradually, as the other trees advance.

As to general pruning, the ſtandards require but little, they having full ſcope to branch freely around, but the wall and eſpaliers being limited to a certain ſpace, and regularity of growth, they require to be pruned annually.

The common ſtandards need only occaſional pruning, probably but once in ſeveral years; juſt to redreſs any irregular growing, or very long rambling branch, and ſuch as grow croſs ways the others, or any that crowd the middle of the head, and to cut out dead wood; pruning them commonly in winter, keeping the ſtem always clear from lateral wood, and the bottom from root ſuckers, ſuffering all the branches of the head to extend at their natural length.

But the wall or eſpalier Pears and Apple-trees, having the bearers and mother-branches arranged horizontally five or ſix inches aſunder, they will annually throw out numerous ſhoots which muſt be regulated both by a ſummer and a winter pruning.

Begin the ſummer regulation in June, to reform the ſhoots of the year, carefully diſplace all fore-right ſhoots emitted from the front and back of the branches, as alſo all others that are ſuperfluous or overabundant, keeping in mind, that as the ſame bearers continuing many years fruitful, and no general ſupply of young ſhoots wanted annually, as in Peaches and other trees which bear on the young wood only, therefore will only require here and there ſome well-placed ſide-ſhoot in any vacant ſpaces below, &c. and the leading ſhoot to the main branches, to be trained in to chuſe from in the winter pruning, cutting out all

all the others cloſe off to the mother-branches, leaving no ſtumps: and train in the ſelect ſhoots at full length all ſummer, cloſe to the wall and eſpalier.

The winter pruning may be performed any time from the fall of the leaf in November, till March; examining the general branches, ſee if there is any vacancy, and what young ſhoots of laſt ſummer are neceſſary to be retained either in a vacant ſpace or in lieu of any bad old wood, and ſuch that are not wanted for theſe purpoſes muſt now be cut clean out to the mother-branches; and, in old trees, if any old worn bearers occur, having either become deficient of proper fruit ſpurs, or aſſume cankered or decayed ſtate, now cut them out either to the bottom or to any lower fruitful branch or eligible young ſhoots they may ſupport; carefully retaining well-placed ſhoots of laſt year in all caſual vacancies, and the terminating one to the mother-bearers, where there is room to train them; obſerving ſtill to retain all the ſhoots deſigned as new bearers, at their full length, which muſt never be ſhortened either in winter or ſummer pruning; eſpecially till they have formed abundance of ſpurs for bearing; and even not then if there is room to extend them: for when retained entire, they naturally emit numerous fruit-ſpurs, all along the ſides, their whole length; having particular regard to preſerve all the preſent, or already-formed fruit-ſpurs on the mother-branches; only occaſionally retrench ſuch as have become barren, very long and projecting conſiderably fore-right; cutting them off cloſe to the branch; being always careful in pruning out the ſuperfluous and bad growths, to prune quite cloſe to the main wood, never leaving any ſpur or ſtump, which would ſhoot from every eye, and fill the tree with thickets of uſeleſs ſhoots in ſummer.

Let each tree, as ſoon as pruned, be neatly faſtened to the wall and eſpalier, the branches extended horizontally five or ſix inches aſunder; and all arranged at their natural length, if room to extend them; thoſe againſt walls nailed thereto, with proper nails and ſhreds, in a ſtraight and handſome manner; and thoſe of the eſpaliers neatly tyed with oſier twigs to the trellis, with the ſame regularity.

Of gathering the fruit.

Pears and Apples arrive to maturity of growth on the trees, in ſucceſſive order, from July until the end of Oc-

tober; though the ſummer kinds may be gathered for preſent uſe immediately off the trees in July and Auguſt; the Apples particularly, when from half to their full growth, for culinary uſes, &c. but the autumnal and winter kinds, both of Pears and Apples, muſt be permitted to hang their full time, before they are generally gathered for keeping. The tokens of full growth, is when they change to a yellowiſh, or a reddiſh colour, and frequently falling from the trees, or eaſily quit the wood with a gentle pull, or twiſt upwards.

The ſummer fruits, for preſent uſe, may be gathered any time when wanted.

But the late autumn and the winter kinds, having their full growth, the autumn kinds the end of September, and beginning of October, and the winter kinds about the middle, and towards the latter-end of the laſt-named month; ſhould be gathered in dry weather; thoſe for long keeping, pulled by hand, and laid in heaps, to ſweat; then carried dry into the fruitery, or ſome houſe, dry and cloſe; depoſiting the different ſorts ſeparate; ſome upon ſhelves, others in diviſions on the floor; and the whole cloſely covered a foot thick, with clean ſtraw, to exclude the external air as much as poſſible, and they will thereby keep longer in perfection; being careful to examine them, at times, to remove any decayed ones, before they communicate the infection to the others.

The Sweet-ſcented Virginian Crab, and its variety, the Evergreen Crab of Carolina, and Siberian Crab, are propagated by layers, cuttings, and by grafting, by all of which the varieties may be continued diſtinct. Or the ſpecies may likewiſe be raiſed from the ſeed, or kernels of the fruit, ſowed half an inch deep.

Culture of the Quince kind.

The Quince is commonly cultivated as a ſtandard: it is but a low tree, and produces its flowers and fruit upon ſmall ſpurs, emitted from the ſides and ends of the branches, which muſt not be ſhortened, but permitted to extend at their natural length, as adviſed for the Pear and Apple.

It may be trained both as a half and full ſtandard; or occaſionally in eſpaliers, for variety; but chiefly ſtandards for the general ſupply; and may be planted any where, in the

the garden or orchard, or in any out-grounds; and in hedge-rows: for they are ſo very hardy, as to proſper in any ſituation: but thrive exceedingly in moiſt places, by the ſides of water, and along the margin of wet ditches, &c. in all of which, as ſtandards, let them take their natural growth; and in eſpaliers, manage them as the Pears and Apples.

Let ſome alſo be introduced into the ſhrubbery; they will have a very agreeable effect, both in their large ſingly-placed flowers, and the large golden fruit.

They are propagated by layers, cuttings, and ſuckers, in autumn, winter, or ſpring, planted in the nurſery, and trained moſtly with upright ſtems, for half and full ſtandards; and ſome alſo as dwarfs, for walls and eſpaliers.

They may alſo be raiſed from the kernels of the fruit, ſowed half an inch deep.

Likewiſe by grafting and budding, any deſired variety upon their own ſeedling ſtocks, or upon thoſe of Pears.

Q.

QUERCUS, OAK-TREE. Evergreen Oak, and Cork-tree, of the claſs and order *Monoecia polyandria*.

They are valuable, deciduous, and evergreen foreſt and ornamental-trees, of the firſt magnitude, with oblong, ſerrated, and oval, pinnatifid and lobated ſimple leaves; and yellowiſh male and female flowers, without petals: the males in looſe amentums, with five-parted cups, and the females ſitting cloſe to the buds, in hemeſpherical intire cups; many ſhort filaments, and five-parted ſtyles; with the oval germen, ſucceeding to an oblong oval nut, fixed into the rough female cup; ripening in autumn for ſowing; and are commonly called acorns.

There are about nine deciduous oaks, and five evergreen ſpecies, viz.

Deciduous kinds, furniſhed with leaves only in ſummer.

1. QUERCUS *Robur, (Robur)* or Common Oak-tree. *Oblong acutely ſinuated leaves, broad at the top.* This is the largeſt and ſuperior of all the Oak kind.

Variety.

Variety.

Striped leaved Oak.

2. QUERCUS *Phellos, (Phellos)* or Willow-leaved American Oak. *(Spear-ſhaped ſmooth intire leaves.)*

Varieties.

Long leaved.

Dwarf, with ſhort leaves.

Variable leaved.

3. QUERCUS *Prinus, (Prinus)* or Cheſnut-leaved American Oak. *(Oblong-ovate leaves, pointed both ways, and with the edges ſinuated-ſawed.)* A large and moſt beautiful tree, next in ſize and value to the Common Oak.

4. QUERCUS *alba*, or White Virginian Oak. *(Oblong, obliquely-pinnatifid many-pointed leaves; the ſinuouſes angled-obtuſe; and the ſtem having a white bark.)*

5. QUERCUS *nigra*, or Black Virginian Oak. *(Wedge-ſhape ſlightly three-lobed leaves; the ſtem having a dark-coloured bark.)*

6. QUERCUS *rubra*, or Red Virginian Oak. *(Oblong obtuſely-ſinuated leaves, with briſtly points; changing of a reddiſh colour.)*

7. QUERCUS *Eſculus, (Eſculus)* or Cut-leaved Italian Oak. *(Oblong, deeply-cut-pinnated-like ſmooth leaves.)*

8. QUERCUS *Ægilops, (Ægilops)* or Large-cupped Spaniſh Oak. *(Ovate-oblong, ſerrated-dentated ſmooth leaves; and the cups of the flower very large, and ſomewhat prickly.)*

9. QUERCUS *Cerris, (Cerris)* or Prickly-cupped Spaniſh Oak. *(Oblong, lyre-ſhape-pinnatifid, tranſverſly-jagged leaves, downy underneath.)*

Evergreen kinds, retaining their leaves the year round.

10. QUERCUS *Ilex, (Ilex)* or Common Evergreen Oak. *(Ovate-oblong, undivided, ſerrated leaves; hoary underneath; ſtem ſmooth-barked.*

Varieties.

Broad-leaved.

Narrow-leaved.

Intire-leaved.

11. QUERCUS *gramuntia*, or Holly-leaved Ilex of Montpelier.) *Oblong-ovate, ſinuated-ſpinous leaves, downy underneath ſeſſile; glands peduncled.)*

12. QUERCUS

12. QUERCUS *coccifera*, *(Coccifera,)* or Scarlet-bearing Kermes Oak. *(Ovate-undivided, dentated-ſpinous, ſmooth leaves; producing ſcarlet, glandular excreſcences on the branches and leaves, called Kermes; uſed in dying.)*

13. QUERCUS *Suber*, *(Suber)* or Cork-tree. *(Ovate-oblong undivided, ſawed leaves; downy underneath; with the trunk of the tree, having a rough fungous bark, which is the Cork.*

14. QUERCUS *molucca*, Moluccа Oak; called American live Oak. *(Spear-ſhape-ovate ſmooth, intire leaves.*

All theſe ſpecies of Oak are of the large-tree kinds; of which the Common Engliſh Oak is of the moſt conſiderable growth, arriving to from ſixty or ſeventy, to an hundred feet high, with a trunk of vaſt magnitude, and prodigious ſpreading head; all the others are alſo fine trees, of forty or fifty feet ſtature: they all flower in April and May, and the acorns ripen in October; good for ſowing, and to fatten ſwine or deer.

The Common Oak, and ſome others, are ſingular in producing a protuberant excreſcence upon the young ſhoots and leaves, in May and June, called Oak-Apples.

They may all be employed as ſtandard foreſt-trees: but the Common Engliſh Oak demands univerſal eſtimation, as a ſuperior timber tree, king of the foreſt, both for its vaſt altitude, and ſubſtance, and for the great value of its wood, &c. and abundance of the trees ſhould be cultivated in all excenſive premiſes; likewiſe ſhould introduce the other ſpecies, in all foreſt-tree plantations, as they will grow to handſome timber-trees, and effect a beautiful variety in their growth.

For ornament, may employ ſome trees of all the ſpecies, in large outward plantations, the evergreen kinds particularly, make a fine appearance at all ſeaſons, and ſhould never be omitted.

The Oak ſucceeds in any common ſoil, but rather affects that of a loamy nature; but may plant them any where in any tolerable ſoil not wet.

Oak woods, for timber, may be formed either by planting young plants, previouſly raiſed from the ſeed, to a yard or two high, in a nurſery, or by ſowing the ſeeds or acorns at once in drills where the wood is intended; the ground being prepared for their reception, by eligible ploughing and harrowing;

harrowing; and in each method may either be diſpoſed in wide rows, twenty feet aſunder, or in cloſe rows, only four or five feet diſtance, to admit of thinning out the underlings gradually; and of cutting down ſome for underwood, every eight, ten, or twelve years; leaving a ſufficiency of the beſt from the beginning, for ſtandards, at about twenty feet diſtance, to arrive to full growth for timber: obſerving to train them with ſingle ſtems, by pruning the lateral ſhoots; and carefully preſerve the top ſhoot entire.

The propagation of all the ſorts of Oak, is by ſowing the acorns either as ſoon as ripe, in November, or preſerved in ſand till February; and having prepared four-feet wide beds of light earth, ſow the acorns either in drills, two inches deep, and half a foot aſunder; or by broad-caſt, previouſly trimming two inches of earth, off the ſurface into the alley; then ſcatter the acorns evenly in the bed, moderately thick; preſs them into the earth with the ſpade, and cover them with the earth two inches deep: they will come up in the ſpring; and when the plants are one or two years old, plant them out in nurſery rows, previouſly pruning their tap root, and ſide ſhoots; the rows two feet and, a half aſunder; and let them be trained to ſingle ſtems, cleared from ſide ſhoots, preſerving the top ſhoots always intire to aſpire in height.

R.

RHAMNUS, BUCKTHORN. *(Pentandia monogynia.)*

This genus comprehends curious deciduous and evergreen tree and ſhrub ſpecies, for ornamental plantations; are of from ſix or eight, to ten or twelve feet growth; ſome defended with thorns, others not; and decorated with oblong and oval, and ſpear-ſhaped ſimple leaves, and ſmall greeniſh funnel-ſhaped flowers, in cluſters; with tubular cups, bearing a funnel-ſhaped, four or five-parted corolla; five ſtamina, and one ſtyle, ſucceeded by naked black, and red, three-celled berries, in cluſters, having ſeveral roundiſh hard ſeeds.

There are four or five deciduous ſpecies, and one evergreen, *(Alaternus.)*

1. RHAMNUS *catharticus*, Cathartic or Common Buckthorn. *(Ovate leaves, terminale ſpines, and quadrifid*

dioceous

dioecous flowers.) A native of England, &c. in hedges; the berries uſed in medicine.

Varieties.

Dwarf Buckthorn.

Long-leaved Dwarf Buckthorn.

2. RHAMNUS *Frangula, (Frangula,)* or Berry-bearing Alder. *(Ovate-ſpear-ſhaped intire leaves, and no thorns.)* Grows naturally in woods in England, &c.

Variety.

Dwarf Berry-bearing Alder.

3. RHAMNUS *alpinus,* or Alpine Crenated leaved Berry-bearing Alder. *(Large ovate-ſpear-ſhape, doubly-crenated leaves, and no thorns.*

4. RHAMNUS *Paliurus, (Paliurus,)* or Chriſt's Thorn. *(Roundiſh-ovate leaves, thorns by pairs, and flowers with three ſtyles.)* Is ſuppoſed to be the plant, of which was compoſed the crown of thorns that was placed on our Saviour's head; it being a native of Paleſtine.

5. RHAMNUS *lineatus, (Lineated-leaved Chineſe Rhamnus,)* called Supple Jack. *(Ovate-lineated repand leaves, netted underneath, and no thorns.*

6. RHAMNUS *Alaternus, (Alaternus,)* commonly called Alaternus, *(Oval, ſtiff, ſhining, ſerrated alternate leaves; no thorns, and dioecious flowers.)* Is a moſt beautiful evergreen, which, and the Phillyrea bearing a great reſemblance, but differ in this has alternate leaves, and thoſe of the phillyrea are placed oppoſite.

Varieties.

Broad-leaved Alaternus.

Jagged-leaved Alaternus.

Bloatched-leaved Alaternus.

Silver ſtriped-leaved.

Gold ſtriped-leaved.

They are all proper furniture for the ſhrubbery, and all other ornamental plantations, being trained with buſhy heads; ſerving to encreaſe the variety in their growth and foliage; but their flowers are not ornamental: The *Alaternus* however, being a very fine ornament evergreen, ſhould have a place in all the moſt conſpicuous compartments; and is proper to train againſt naked walls, &c. in which the variegated kind particularly will appear very beautiful; and may alſo be formed into ornamental evergreen hedges.

All

All the ſpecies are propagated by ſeed, layers, and cuttings. Procure the ripe berries in autumn, and ſow them in light earth, an inch deep: they will ſometimes come up the firſt year, and ſometimes not freely till the ſecond ſpring; and when of a year or two old, plant them in the nurſery, and trained to a proper ſize for the ſhrubbery. Layers of the young wood, in autumn or ſpring, by ſlit laying, root freely in one year; and cuttings of the tender young twigs will alſo grow.

The propagation by layers, &c. is the only method for continuing the different varieties of the alaternus.

RHODODENDRON, *(Rhododendron,)* or Dwarf Roſe Bay. *(Decandria monogynia.)*.

They are deciduous and evergreen flowering ſhrubs, of from two or three, to eight or ten feet growth; adorned with oval and ſpear-ſhaped leaves, and wheel-ſhaped red flowers, ſome in cluſters, others ſingly; having five-parted cups, a monopetaleous, wheel-funnel-ſhaped, five-parted corolla, ten ſtamina, and one ſtyle, ſucceeded by an oval cupſule, of five cells, with numerous ſeeds.

The ſpecies are, two deciduous, and two evergreens, which are,

Deciduous kinds of low growth, producing their flowers on cluſters.

1. RHODODENDRON *hirſutus*, or Hairy Dwarf Roſe Bay, of the Alps. *(Ovate-ſpear-ſhape, hairy-ciliated, naked leaves; funnel-form flowers.)*

2. RHODODENDRON *ferrugineum*, or Ferrugineous, or Iron-coloured Alpine Rhododendron. *(Spear-ſhaped ſmooth leaves, ſcurfy iron-coloured underneath; funnel-form flowers.)*

Variety.

Striped-leaved.

Evergreen kinds, green all the year, of larger growth, with flowers ſingly and in cluſters.

3. RHODODENDRON *maximum*, or Greater Laurel-leaved Virginia Rhododendron. *(Oval-obtuſe, veined, gloſſy-ſhining leaves; the margins acute reflexed; and peduncles one-flowered.)*

4. RHODODENDRON *ponticum*, or Pontic Dwarf Laurel Roſe

Roſe Bay. *Spear-ſhaped, gloſſy-ſhining leaves, ſmooth on both ſides, and terminal racemous cluſters of flowers.*

5. RHODODENDRON *dauricum* Daurian, Dotted-leaved Rhododendron. (*Smooth dotted naked leaves; wheel-ſhaped flowers.*)

They are moſtly of the ſhrub-tree kind, very proper to plant for ornament and variety in the moſt conſpicuous ſhrubbery compartments, in a moderately-light dry ſoil, where they will effect a very diſtinguiſhable diverſity, both in foliage and flowers, in ſummer; and the evergreen kinds kinds appear moſt beautiful the year round; and may all be propagated both by ſeed in the ſpring, in a bed, &c. of light earth, making the ſurface ſmooth, ſow the ſeed thereon, and cover it with light fine mold, a quarter, or near half an inch deep, or in pots to be forwarded in a hot-bed; likewiſe by layers and cuttings of the one year's ſhoots, in ſpring or autumn; or cuttings in the ſpring might be forwarded in a bark-bed, &c.

RHODORA, DWARF RHODODENDRON, or Baſtard Roſe Bay. Of the claſs and order *Decandria monogynia.*—See *Rhododendron*, above.

One ſpecies, viz.

RHODORA *canadenſis*, or Canada Dwarf Roſe Bay.

RHUS, SUMACH, and *Toxicodendron*. Of the claſs and order *Pentandria tryginia.*

They are deciduous moderate tree and ſhrub kinds, for variety in the pleaſure-ground, of from five or ſix, to ten or fifteen feet growth; adorned, ſome with long pinnated leaves, of many pair of lobes, and an odd one; and ſome others with ſimple leaves; are trifoliate, or ternate, of three lobes; and numerous ſmall five-leaved flowers, terminating the branches in ſingular paniculated ſpikes and cluſters; having five-lobed cups, five oval petals, five very ſhort filaments, three very ſmall ſtyles, and ſmall berries, with roundiſh hard ſeeds, rarely ripening in England.

The ſpecies are,

Sumach kinds, producing large irregular brown velvety ſhoots, terminated by vaſt panicles of flowers, and red ſeeds.

1. RHUS *Coriaria*, (*Coriaria,*) or Tanners Sumach. (*Pinnated, oval-lobed, blunt, ſerrated leaves, hairy underneath.*)

2. RHUS *typhinum*, Typhinous, or Stag's-horn Virginia Sumach. (*Crooked irregular branches, and very thick*

velvety ſhoots; pinnated, ſpear-lobed, acute ſawed leaves, downy underneath.)

3. RHUS *Copallinum, (Copallinum,)* or Lentiſcus-leaved American Sumach. *(Pinnated leaves, with intire lobes; petioles membraneous jointed.)*

4. RHUS *glabrum,* Glabrous or Smooth American Sumach. *(Pinnated, ſpear-lobed, intire leaves, ſmooth on both ſides.)*

5. RHUS *cotinus, (Cotinus,)* or Venetian Sumach, *(Simple ob-ovate leaves.)*

Toxicodendrons, or Poiſon-Tree kinds, the two firſt ſomewhat trailing, the others more erect.

6. RHUS *Toxicodendron (Toxicodendron,)* Common American Toxicodendron, or Poiſon-Tree. *(Rooting ſtem; ternate or three-lobed leaves, with angulated downy lobes.*

7. RHUS *radicans,* Radicant, or Rooting-ſtalked American Toxicodendron. *(Stalks emitting roots, and ternate leaves, with ovate, ſmooth, intire lobes petioled.)*

8. RHUS *Metopium, (Metopium,)* or Five-lobed American Poiſon-Tree. *(Pinnated leaves, with five roundiſh, ſmooth, intire lobes.*

9. RHUS *Vernix, (Vernix,)* or Varniſh-Tree, or American Poiſon Aſh. *(Pinnated, dark, annual leaves, with intire lobes; petioles intire equal.)*

10. RHUS *ſuccedaneum,* Succedanous, or Spurious Varniſh-Tree, (of China and Japan.) *(Pinnated intire leaves ſhining perennial.)*

All theſe ſhrubs form a ſingular variety, in the ſhrubbery compartments; planting them any where in the deciduous collection, in which they will diſtinguiſh themſelves very agreeably, at all ſeaſons: their ſingular foliage, and long panicles, in ſummer; and in the Sumach kinds particularly, appear ſingular in winter, in their large ſtag-horn brown, downy, velvety ſhoots, terminated by the red panicles of downy ſeeds.

Propagate them by ſeeds, and layers, and ſome by ſuckers, and their radicant or rooting branches. Sow the ſeed in a border of light earth, half an inch deep; or in pots, to be forwarded in a hot-bed; and the ſeedlings planted out at a year or two old, in the nurſery; layers of the young branches, ſlit-layed, root freely; and ſuckers from

from the root, in ſome of the Sumachs, and rooting branches of the *Toxicodendrons*, may be planted off with roots, into the nurſery, till fit for the ſhrubbery.

RIBES, CURRANT-TREE, and GOOSEBERRY-BUSH. Of the claſs and order *Pentandria monogynia*.

They are deciduous bacciferous ſhrubs; ſpecies of the ſame genus, agreeable to the botanic *characters* of the flowers; valuable for their excellent berries, both as culinary and table fruit; growing five or ſix-feet high: the Currant having ſmooth branches, the other armed with thorns; garniſhed with ſimple trilobated leaves, and very ſmall pentapetalous greeniſh flowers, produced in cluſters along the ſides of the branches; having one-leaved, bellied, five-lobed cups; a corolla of five ſmall obtuſe petals, attached to the calix; five ſtamina, and a bifid ſtyle ſucceeded by globular umbellicated berries, full of pulp and ſmall ſeeds; ripening for eating in June and July.

Currant kinds having ſmooth thornleſs branches, largeſt leaves, and the flowers and fruit in longiſh pendulous cluſters.

1. RIBES *rubrum*, or Red Currant-Tree. *(Without thorns, and plane flowers, in ſmooth pendulous cluſters.)* A native of England, &c. in woods and hedges.

Varieties.

Common Small Red Currant.
Large Dutch Red Currant.
Long Bunch Red Currant.
Pale Red Currant.
White Currant.
Large White Dutch Currant.
Yellow Bloatched-leave Currant.
Silver-ſtriped Currant.
Gold-ſtriped Currant.

2. RIBES *nigrum*, or Black Currant-Tree. *(Without thorns; oblong flowers, in hairy cluſters, and bunches of large, black, ſtrong-flavoured berries.)* The whole plant imparts a rank odour.

Variety.

Pennſylvanian Black Currant; with ſmaller ſhoots and leaves; not of a rank odour.

3. RIBES *alpinum*, or Alpine Erect Flowering Currant. *(Unarmed; with flower-cluſters erect; bracteal leaves longer than the flowers.)*

Gooſeberry kinds having prickly branches, ſmaller leaves, and the flowers and fruit in ſmaller cluſters, cloſer to the branches.

4. RIBES *Groſſulariæ*, *(Groſſularia,)* or Common Gooſeberry-Buſh. *(Prickly branches; petioles ciliated hairy: and hairy berries.)*

Varieties, ſeveral different ſorts of the fruit.

5. RIBES *reclinatum*, or Reclining-branched Gooſeberry-Buſh. *(Reclinated ſomewhat prickly branches, and petioles with three-leaved bractea.)*

6. RIBES *oxyacanthoides*, or Haw-leaved Gooſeberry-Buſh. *(Branches every where very prickly.)*

7. RIBES *Uva-criſpa*, *(Uva-criſpa,)* or Smooth-fruited Gooſeberry-Buſh. *(Prickly branches, one-leaved bractea, and ſmooth berries.)*

8. RIBES *cynoſbati*, or Prickly-fruited Gooſeberry. *(Prickles moſtly at the axillas, or angles of the branches; and prickly fruit in cluſters.)*

Different varieties of the fruit of the ſeveral ſpecies, conſiſting of round berries, oval berries, of reds, greens, yellows, and whites; ſmooth, and hairy kinds, viz.

(Reds.)

Early Black Red Gooſeberry.
Hairy Red Gooſeberry.
Smooth Red Gooſeberry.
Deep Red Gooſeberry.
Blueiſh Red Gooſeberry.
Damſon Gooſeberry.
Red Raſpberry Gooſeberry.
Large Tawney, or Mogul Red Gooſeberry.

(Greens.)

Early Green Gooſeberry.
Hairy Green Gooſeberry.
Smooth Green Gooſeberry.
Green Gaſcoigne Gooſeberry.
Green Raſpberry Gooſeberry.

(Yellows.)

Early Amber Gooſeberry.
Great oval Yellow Gooſeberry.
Great Amber-Yellow Gooſeberry.
Hairy Amber Gooſeberry.

(Whites.)

(Whites.)
Common White Gooſeberry
Large White Cryſtal Gooſeberry.
White veined Gooſeberry.
(Different varieties.)
Hairy Globe Gooſeberry.
Champaigne Gooſeberry.
Rumbullion Gooſeberry.
Large Iron-monger Gooſeberry.
Smooth Iron monger Gooſeberry.

All the varieties of Currants and Gooſeberries, are hardy ſhrubs, of buſhy growth, branchy from the bottom, forming full buſhy heads; producing the fruit both on the young ſhoots, and on the older branches, upon ſmall ſpurs, emitted all along the ſides of them; and the ſame branches continue ſeveral years in bearing.

They have great merit, as fructiferous ſhrubs, for producing vaſt abundance of fine berries, ripening for eating and culinary purpoſes, two or three months in ſummer; being excellent for tarts and pies, &c. when young and green; more eſpecially the Gooſeberry; and are moſt agreeable, well-reliſhed, and refreſhing wholeſome-eating fruit, when ripe: and the Currants, in their mature ſtate, are alſo exceedingly uſeful culinary fruit for tarts and ſauces, &c. ſo that plenty of the trees, of the varieties of each ſort, both Currants and Gooſeberries, ſhould be cultivated in every garden, principally as ſtandard-buſhes, for the general ſupply; and occaſionally trained againſt walls, and in eſpaliers; particularly the Currants, to improve their ſize and flavour; alſo a few gooſeberries, for early fruit.

The propagation of all the ſorts of Currants and Gooſeberries, is expeditiouſly effected by ſuckers from the root, cuttings of the young ſhoots, and layers of the branches; but principally by ſuckers and cuttings. Take up the ſuckers any time from October till March, with roots thereto, and plant them either in the nurſery for training, or the ſtrong ones at once, where they are to remain; trimming the long weak tops of ſuch as require it, leaving thoſe for ſtandards of proper length, to form a ſtem of from a foot, to eighteen inches; but thoſe for fanned trees, or for walls, &c. may be pruned ſhorter: and as to cuttings, chuſe the ſtrong

clean ſhoots of laſt ſummer, cut off any time from the fall of the leaf, in autumn, till ſpring, a foot, or fifteen, or eighteen inches long; pruning the weak tops, and plant them in rows a foot aſunder, each one-third way into the ground, and they will freely emit roots and grow.

In their growth, train both ſuckers and cuttings for the purpoſes intended; thoſe for ſtandard-buſhes, run to ſingle ſtems, a foot, or half a yard high, by pruning off all lower collaterals; and let them branch at top all around, into full heads; and deſigned for fanned-trees, for walls, &c. train them with ſhort ſtems only half a foot high, or leſs; retaining the ſhoots which advance the way of the row, and cut off the projecting ones, advancing croſs ways, before and behind.

When deſigned as ſtandard-buſhes, they ſhould commonly be trained each with a ſingle ſtem, a foot, at leaſt high, then permitted to branch at that height and form a full head; and then planted in rows in the kitchen garden, either around the larger quarters, in a ſingle range, ſix or eight feet diſtance in the row; or in croſs rows, to divide the ground into wide breaks, or compartments, twenty or thirty feet wide, or more.

Keep the heads regular, either full in the middle, or concaved or hollow, with the branches always pruned moderately thin, about ſix or eight inches aſunder, to admit the ſun and free air in ſummer, to improve the ſize and flavour of the fruit; retaining the ſame branches ſeveral years, for bearers; and by no means ſhorten the branches any ways conſiderably, which would force them into numerous uſeleſs ſhoots.

But obſerving, that as theſe ſhrubs naturally ſend out numerous ſhoots annually, from the ſides of all the main bearers, they require pruning every year, to retrench the redundant growth; performing the principal pruning in winter; cutting out all the unneceſſary ſhoots cloſe to the mother-branches, which retain ſix or eight inches aſunder, and the terminating, or leading ſhoot to each branch either placed naturally at the termination thereof, or the branches, when too long, may be occaſionally ſhortened down to ſome convenient lower ſhoot, for a leader: at the ſame time, if any old bearer affect a bad growth, take an irregular direction, or aſſume a worn-out unfruitful ſtate, let them be cut out, either

either to their origin, or down to the firſt eligible lower ſhoot, or young branch; or leaving young wood to ſupply the place of that cut away, if it ſeems neceſſary: being careful to retain good young ſhoots below, occaſionally, in caſual vacancies, advancing at full length, till they attain proper growth, conſiſtent with the extent of the general branches; and each branch being terminated by one leading ſhoot, as above adviſed, they and the ſhoots in general ſhould be but moderately ſhortened, eſpecially the Gooſeberry; only juſt reduce ſuch as ramble much out of bounds, or ſtraggle in a contrary direction, and ſuch as recline much downwards: for too ſevere ſhortening of theſe buſhes, forces out numerous lateral ſhoots in ſummer, thereby fill the heads with thickets of uſeleſs wood; nd the conſequence is, they produce ſmall ill-nouriſhed fruit, of a bad flavour.

Currants and Gooſeberries are ſometimes trained as fanned dwarf-ſtandards, in particularly confined places, not admitting of their head ſpreading fully around, and for which purpoſe, train them with ſhort ſtems, branching out near the ground; prune them up in front and behind ſo as to make the ſide-branches extend only to the right and left, in a ſtraight range, the way of the row, in which they will not encumber the ground; and will produce larger and finer fruit.

For walls and eſpaliers, ſhould have a principal ſupply of Red and White Currants particularly; trained each with a low ſtem, branching out within a few inches of the bottom; training the branches in a fanned manner; and plant ſome againſt ſouth walls, for early fruit, and others in weſt and eaſt expoſures, for ſucceſſional crops, and a larger quantity againſt north walls, to continue a large ſucceſſion, late in the ſeaſon; arranging the branches five or ſix inches aſunder, either horizontally, or upright, as the ſpace of room admits, and extended wholly at full length, till they reach the limited extent of bounds; and as they will throw out many lateral ſhoots in ſummer, they muſt be pruned in that ſeaſon, taking off all fore-right, and ſuch other ſhoots that appear unneceſſary, leaving only ſome good ſide-ſhoots below, in any caſual vacant ſpace; nailing them cloſe to the wall, &c. at their full length, till winter-pruning; when examine the general bearers, if any are of a bad, or unfruitful growth, cut them out, retaining young in their ſtead; and ſuch young ſhoots that are not then wanted for this purpoſe, ſhould

ſhould be pruned out cloſe to the mother-wood; directly nailing all the branches up in a regular manner.

In Currant and Gooſeberry-Trees, in general, ſhould keep them clear from root-ſuckers, which riſe annually, eradicating them clean out, to the bottom, every year; and if neceſſary, they will ſerve for new plants.

ROBINIA, FALSE ACACIA. Of the claſs and order *Diadelphia decandria.*

They are of the deciduous tree and ſhrub kind, proper for the ſhrubbery collection; obtaining in growth ſome thirty or forty-feet, others half ſo much, and ſome but ſix or eight, and others not above three or four-feet high; garniſhed, ſome with winged many-lobed leaves, and others quaternate, or four together; and papilionaceous, or butterfly-ſhaped, white, red, and yellow flowers, in hanging bunches, having monophyllous four-lobed cups, a corolla, with a ſpreading ſtandard, two oval wings, and a roundiſh carina; ten diadelphous ſtamina, a bent ſtyle, and ſucceeded by oblong pods, with kidney-ſhaped ſeeds.

There are four ſpecies; the firſt being of the large tree kind; the others are of ſhrubby growth.

1. ROBINIA *Pſeud-Acacia, (Pſeud-Acacia,)* Falſe Acacia, or Common American *Robinia. (Winged leaves, of nine or ten pair of lobes, terminated by an odd one; prickly ſtipula, and pendulous cluſters of white flowers, one on each pedicle.)*

Varieties.

(echinata,) Prickly-podded American Robinia.

(hiſpida,) Hiſpid American Robinia, or Roſe Acacia; having ſhrub-like, hiſpid or briſtly ſtems, and beautiful Roſe-coloured flowers.

2. ROBINIA *Caragana, (Caragana,)* or Abrupt-pinnated-leaved Siberian Robinia. *(Abrupt pinnated leaves, of five or ſix pair of lobes, not terminated by an odd one; and ſimple footſtalks, with yellow flowers ſingly.)*

3. ROBINIA *fruteſcens*, or Shrubby Four-leaved Siberian Robinia. *(Leaves four'd, ſub-petioled, and ſimple footſtalks, with yellow flowers.)*

4. ROBINIA *pygmæa.* or Dwarf Four-leaved Siberian Robinia. *(Leaves four'd cloſe-ſitting; and ſimple footſtalks, with yellow flowers.)*

All the ſorts are fine furniture, for ornamental plantations; appearing ſingular in their beautiful pinnated, and quaternate

quaternate leaves; and produce their flowers in May and June, the ſeed pods in autumn.

They are propagated by ſeed, cuttings, and layers; ſow the ſeed in March, half an inch deep, and the cuttings and layers of the young ſhoots, in autumn or ſpring; they will root in one ſeaſon: likewiſe ſuckers from the root, in the firſt ſpecies particularly.

ROSA, Rose-Tree. Of the claſs and order *Icoſandria polygynia.*

The Roſe compriſes a grand collection of the moſt beautiful deciduous flowering-ſhrubs, furniſhed with prickly armature, pinnated, rough leaves, of three, five, or ſeven lobes; and numerous moſt elegant odoriferous five-petal'd flowers; comprehending a vaſt variety of moſt beautiful double kinds; having a one-leaved, bellied, fleſhy cup, cut into five long ſegments, a corolla of five obverſe heart-ſhaped petals; which, in the doubles, are numerous in many ſeries, one within the other; twenty or more ſtamina, and numerous germina in the bottom of the cup, ſupporting numerous ſmall ſtyles; the calyx, or cup, ſucceeding to a top-ſhaped, fleſhy, unilocular fruit, called heps, filled with hairy ſeeds.

The ſpecies are,

1. Rosa *canina*, Dog Roſe, or Wild Roſe of the hedges, &c. *(Prickly ſtalks and petioles; ovate ſmooth germina, and ſmooth peduncles.)*

Varieties.

Red-flowered.

White-flowered.

2. Rosa *arvenſis*, Field, or Corn Roſe. *(Prickly ſtem, and petioles, globoſe germina, ſmooth peduncles, and flowers in a corymbus.)*

Varieties.

White-flowered.

Red-flowered.

3. Rosa *alba*, or Common White Roſe. *(Prickly ſtalks, and petioles, ovate ſmooth germina, and hiſpid peduncles.*

Varieties.

Double White Roſe.

Large Double White Roſe.

Semi-double White Roſe.

Dwarf Single White Roſe.

Maidens-bluſh cluſtered White Roſe.

4. Rosa

4. Rosa *gallica*, or Gallican Roſe. *(Prickly hiſpid ſtems, and petioles, and ovate hiſpid germina, and hiſpid peduncles.)*

Varieties uncertain, but ſuppoſed the following belong to it.

Common Semi-double Red Roſe.
Double Red Roſe.
Roſa-mundi Roſe, (Roſe of the World,) or Striped Red Roſe.
York and Lancaſter Variegated Roſe.
Red Monthly Roſe.
Bluſh Monthly Roſe.
White Monthly Roſe.
Striped Monthly Roſe.
Red Damaſk Roſe.
White Damaſk Roſe.
Bluſh Belgic Roſe.
Velvet Roſe.
Marbled Roſe.
Double Virgin Roſe.
Red and Yellow Auſtrian Roſe; one ſide reddiſh, the other yellow.
Yellow Auſtian Roſe.
Double Yellow Roſe.
Frankfort Roſe.

5. Rosa *centifolia*, or Hundred-leaved Roſe. *(Prickly ſtems, ſmooth petioles, and ovate hiſpid germina, and hiſpid peduncles.)* Large very double red flowers.

Suppoſed varieties are,

Common Dutch Hundred-leaved Roſe.
Bluſh Hundred-leaved Roſe.
Provence Roſe.
Cabbage Provence Roſe.
Childing Provence Roſe.
Moſs Provence Roſe, (very curious.)
Bluſh Provence Roſe.

6. Rosa *cinnamomea*, or Cinnamon Roſe. *(Stem ſtipulæ prickly, almoſt ſmooth petioles, and globoſe ſmooth germina, and ſmooth peduncles.)* Purpliſh-red cinnamon-ſcented flowers.

Varieties.

Double flowered.
Single-flowered.

7. Rosa

7. Rosa *Carolina*, or Carolina Roſe. *(Stems ſtipula-prickly, and prickly petioles of the leaves; globoſe hiſpid germina, and ſomewhat hiſpid peduncles.)* Single red flowers, in cluſters.

Varieties,

Double-flowered of Penſylvania.

Pale red-flowered.

8. Rosa *Villoſa*, Villous-leaved Apple-bearing Roſe. *(Stem prickles ſcattered, and prickly petioles, downy leaves, globoſe germina, and hiſpid peduncles.)* Large ſingle red flowers, and very large apple-ſhaped prickly eatable heps; ſometimes made into ſweetmeats.

Varieties.

Double-flowered.

Semi-double-flowered.

9. Rosa *pimpinellifolia*, Pimpinella-leaved, called Burnet-leaved Roſe. *(Stem prickles ſcattered ſtraight; rough petioles, with obtuſe folioles, and globular ſmooth germina, and ſmooth peduncles.)* Small ſingle flowers. A native of England, &c.

Varieties.

Red-flowered Burnet-leaved Roſe.

White-flowered Burnet leaved Roſe.

10. Rosa *Alpina*, Alpine Unarmed, or Smooth Roſe. *(Smooth, or thornleſs ſtalks; ovate ſmooth germina; ſomewhat hiſpid peduncles;)* Deep-red ſingle flowers.

11. Rosa *Spinoſiſſima*, Moſt Spinous, or Dwarf Scotch Roſe. *(Moſt prickly ſtalks, and petioles; peduncles hiſpid; ſmooth ovate germina.)* Grows wild in Scotland and England, &c.

Varieties.

White-flowered Scotch Roſe.

Red-flowered Scotch Roſe.

Yellow-flowered Scotch Roſe.

Striped-flowered.

Marble-flowered.

12. Rosa *eglanteria*, Eglantine Roſe, or Sweet Briar. *(Stem prickles ſcattered ſtraight, rough petioles, acute folioles, and globular ſmooth germina, and ſmooth peduncles.)* Grows Wild in England, &c. admired for its ſweet ſcent. Pale red flowers.

Varieties.

Single-flowered Sweet Briar.

Semi-

Semi-double-flowered.
Double-flowered.
Bluſh-double-flowered.
Yellow flowered.

12. Rosa *rubiginoſa*, Rubiginous, or Ruſty-leaved Roſe. *(Leaves ruſty underneath, and globoſe prickly germina, recurved prickles.)*

13. Rosa *Sempervirens*, or Evergreen Muſk Roſe. *(Prickly ſtalks, and petioles, and globoſe germina, and hiſpid peduncles; flowers almoſt in umbels.)* Pure white muſk-ſcented flowers, in cluſters; and leaves remaining the year round.

Variety,
Deciduous Muſk Roſe.

Roſes are the moſt beautiful flowering ſhrubs of our gardens; their flowers numerous, large, elegant, and odoriferous, and ſingularly ornamental; and are ſo hardy as to proſper in any ſoil and ſituation; and peculiarly adapted to gardens of any denomination: they will grow without trouble, and multiply exceedingly by ſuckers.

They are all of the ſhrub kind, from three or four, to ſix or eight-feet high; generally riſing with ſeveral ſtems, near the ground, or by ſuckers from the bottom.

Their ſeaſon of flowering is June, July, and Auguſt: many flowers ſucceeding one another in the ſame plant.

All the ſorts of Roſes, in the different ſpecies and varieties, may be planted any where for ornament, in borders, ſhrubbery clumps, and all pleaſurable plantations; diſpoſed towards the front next the walks and lawns; either training them with ſingle ſtems, by clearing off all ſuckers from the root, in which they will form the handſomeſt plants, with regular buſhy heads: or may be permitted to branch out from the bottom, according to nature, and form a buſhy growth.

Sometimes they are trained in a kind of low hedge, one, two, or three-feet high; as frequently practiſed about London, to produce large quantities of flowers for the markets: for which purpoſe, having a quantity of ſuckers, plant them in a ſingle row, one foot aſunder; and when all planted, cut them even at top; and as they will annually ſhoot out ſtrong at the ſides and top, they ſhould be clipped regular with the garden ſhears, when paſt flowering, or in winter.

The

The Sweet Briar is alſo occaſionally formed in hedges. Either ſow the ſeed where the hedge is intended, or plant young ſeedlings from nurſery-beds. It is greatly uſed about London for backing to bough-pots, &c.

Any choice ſorts of Roſes may alſo be planted in pots, to move to any particular part required; or for placing occaſionally in hot-houſes; or forcing-frames, to force for an early bloom, in which they may be forwarded in winter, and ſpring, two or three months before their natural ſeaſon.

You may likewiſe plant ſome ſorts againſt warm walls, to promote their early flowering.

The propagation of all, or moſt of the ſpecies of Roſes, is principally by ſuckers from the root, ſent up in abundance every year in ſummer, fit to plant off the next autumn, or winter: alſo by layers, in ſuch as afford ſuckers but ſparingly; ſuch as the Moſs Provence kind; which ſort is alſo propagated by budding it upon any common Roſe ſtocks, as may likewiſe any other deſirable varieties.

The ſuckers for propagation may be dug up any time in winter or ſpring, with roots. Trim their weak tops, and ſtraggling roots, and plant them either in the nurſery for training, or ſtrong ones at once, where they are to remain.

Layers of the young ſhoots, in autumn or ſpring, will be rooted by the autumn following.

The Sweet Briar is commonly raiſed from ſeed ſown in autumn or ſpring, in drills half an inch or an inch deep, both in beds, drilled in a foot aſunder, for occaſional tranſplanting, and in a ſingle drill along the edge of any particular compartments, where required finally to remain.

ROSMARINUS, Rosemary. Of the claſs and order *Diandria monogynia*.

The Roſemary is a well-known evergreen ſhrub, of five or ſix feet growth, with ſmall, narrow, ſpear-ſhaped, ſtiff leaves, and ſmall purpliſh flowers, with bilabiated cups, and ſmall monopetalous tubular corolla, with two lips, ten ſtamina, one ſtyle, and four oval ſeeds in the calix.

The ſpecies is,

Rosmarinus *officinalis*, Officinal, or Common Roſemary.

Varieties.

Narrow-leaved Roſemary.
Broad-leaved Roſemary.
Silver-ſtriped Roſemary.
Gold-ſtriped Roſemary.

The Roſemaries are employed both as medical plants in the kitchen-garden, and for variety in the ſhrubbery; being trained with a ſhort ſtem and buſhy head, and planted in a dry ſoil.

They propagate freely by layers of the young wood; likewiſe by ſlips and cuttings of the young ſhoots, in the ſpring.

RUBUS, RASPBERRY-PLANT, and BRAMBLE. Of the claſs and order *Icoſandria polygynia*.

They are under-ſhrubby deciduous plants, of upright and trailing growth, for fruit-bearing, and variety; garniſhed with pinnated and ternate, and hand-ſhaped leaves, and pentapetalous purple and white flowers, in cluſters, from the ſides and ends of the ſhoots; having five-parted cups, five roundiſh ſpreading petals, twenty or more ſtamina, and numerous germina and ſtyles; ſucceeded by cluſters of compound ſucculent berries, of many acini, or ſeeds. Ripe in July and Auguſt.

There are ſeveral ſpecies; the firſt of which only is cultivated for its fruit; the others for variety in the ſhrubberry, &c.

The ſpecies are,

Upright kinds; having all the ſtalks upright, ſeveral from each root; laſting but one year, but renewed by young ones annually.

1. RUBUS *idæus*, Rubus of Mount Ida, or Common Raſpberry-Plant. *(Upright prickly ſtalks, five foliated pinnate and three-lobed prickly leaves; petioles channelled.)* Fine eatable berries, in cluſters. Grows wild in woods, &c. in England.

Varieties.

Purple-flowered Raſpberry.
White-flowered Raſpberry.
Red-fruited Raſpberry.
White-fruited Raſpberry.
Twice-bearing Red and White Raſpberry, producing two crops of fruit the ſame year.
Black-fruited Raſpberry.
Prickly-ſtalked Raſpberry.
Smooth-ſtalked Raſpberry.

The above ſpecies, and varieties, demand culture, for their agreeable fruit, for eating, and culinary purpoſes, &c.

2. RUBUS

2. RUBUS *odoratus*, Odoriferous, or Virginia Flowering Raſpberry. *(Strong, ſmooth, many-leaved ſtalks, large, ſimple palmated leaves, and numerous large purple flowers, very ornamental.)*

3. RUBUS *occidentalis*, Occidental, or American Downy-leaved Raſpberry. *(Prickly ſtalks, and ternate, or three-folioled leaves, hoary underneath; round petioles.)*

4. RUBUS *canadenſis*, or Canada Smooth Raſpberry. (*Unarmed, or ſmooth ſtem; leaves fingered, ten, five, and three-lobed.*)

Shrubby trailing kinds; having moſtly trailing ſtalks, of ſeveral years duration.

5. RUBUS *fruticoſa*, Shrubby *Rubus*, Common Bramble, or Blackberry-Plant of the hedges, &c. (*Long, trailing, very prickly ſtalks; five and three-folioled leaves; prickly petioles.*)

Varieties.

Common bramble, with black berries.
White-fruited Bramble.
Double-bloſſom Bramble.
Unarmed, or Thornleſs Bramble.
Cut-leaved Bramble.
Stripe-leaved Bramble.

6. RUBUS *cæſius*, Blue-berried Bramble, or Dewberry-Buſh. *(Weak, cylindric, prickly, trailing ſtalks, and three-folioled naked leaves, lateral ones two-lobed, and ſmall blueiſh-black berries.)*

7. RUBUS *hiſpidus*, or Hiſpid Canada Bramble. *(Slender, hiſpid, trailing ſtalks, and three-folioled naked leaves; hiſpid petioles.)*

The Common Raſpberry, and varieties, are valuable for their abundant crops of fine eatable berries, in July and Auguſt; and the Twice-bearing ſort produce one crop in July, and a ſecond in September; all of which bear their fruit on the young ſhoots of the former year's production, which, riſing in ſuckers immediately from the root, in ſpring, attaining full growth the ſame year, bear fruit the ſummer following, decay down to the root next winter; and being ſucceeded by a ſupply of new ſtalks from the ſame root, every ſummer, for ſucceſſional bearers, the old decayed bearers muſt always be cut out in winter, to make room for the ſucceeding young bearing ſtems.

They may be planted in any open ground in the kitchen-garden, &c. and, if for a full plantation, you ſhould plant them in rows, ranging ſouth and north, a yard and a half aſunder, by two or three feet diſtance in the rows; having, for this purpoſe, a quantity of young ſuckers, of ſome good bearing plants, dug up in autumn, winter, or ſpring, with good roots; of which trim any long, ſtraggling, and woody parts, and prune the weak tops; then plant them either ſingly, or two or three together, at the diſtances above; or they may be diſpoſed in patches, in borders, or ſhrubberies, ſingly, or two or three together, in a ſort of clump.

In their culture obſerve, that as the ſame individual ſhoots never bear but one year, they decaying to the root in the winter following, young ones being produced from the bottom in ſummer, to ſucceed them, the old ſtems muſt accordingly be cut down to the ground every winter, and the young ones thinned to from three or four, to five or ſix of the ſtrongeſt ſtems on each ſtool, or root; and prune them at top, cutting off the weak and bending part; and as ſoon as pruned, let the ground be dug between the rows, &c. and clear out all ſtraggling plants that are diſtant from the main root.

All the other ſpecies of *Rubus*, are valued principally for diverſifying the ſhrubbery plantations: likewiſe all the varieties of the Common Raſpberry, in aſſemblage with the Virginia Flowering, and Occidental Raſpberry, may be introduced in all ſhrubbery compartments, and will cauſe a very agreeable variety: but the Common Bramble is admitted but ſparingly; only ſometimes in thickets, or rough plantations, for obſervation: but its varieties, together with the other two Bramble ſpecies, claim admittance in all curious ſhrubbery collections.

The propagation of the Raſpberries, is by ſuckers ſent up annually from the root, which may be tranſplanted in autumn, &c. with roots, either in the places where they are to remain, or in a nurſery till wanted.

All the brambles propagate abundantly by layers, at any ſeaſon of the year; alſo by cuttings in ſpring and autumn.

RUSCUS, BUTCHER'S BROOM, or KNEE HOLLY. Of the claſs and order *Dioecia ſyngeneſia*.

They are low, ſingular, ſhrubby evergreens; having ſlender, greeniſh ſtems, adorned with ſmall, ovaliſh, and ſpear-

ſpear-ſhaped, ſtiff, ſhining leaves, ſome with prickly points, others ſmooth; and ſmall male and female purple flowers, on ſeparate plants, produced ſingularly on the ſurface and margin of the leaves; having ſix-leaved cups, no corolla, but an oval nectarium; no ſtamina, only three antheræ; an oval germen, with one ſtyle; ſucceeded in the females by a globular, cherry-like, two-ſeeded red berry, ripe in winter; not eatable.

The ſpecies are,

1. RUSCUS *aculeatus*, Prickly Ruſcus; Common Butcher's Broom, or Knee Holly of the Woods. *(Leaves with prickly points, producing flowers on the upper ſide naked.)* Grows in woods in England, &c.

2. RUSCUS *Hypophyllum*, *(Hypophyllum,)* or Under-leaf-flowering Ruſcus, called Alexandrian Laurel. *(Leaves bearing flowers on their under ſide, naked.)*

Varieties.

Narrow-leaved.

Broad-leaved.

3. RUSCUS *Hypogloſſum*, *(Hypogloſſum,)* or Tongued-leaved Ruſcus, or Tongue-upon-Tongue Alexandrian Laurel. *(Leaves producing a ſmaller leaf, like a tongue; with flowers on the upper ſurface, under the foliole.)*

4. RUSCUS *racemoſus*, or Cluſter-flowering Alexandrian Bay. *(Hermaphrodite flowers terminating the branches in cluſters.)*

Theſe ſingular plants are of buſhy growth, from two or three, to four feet high; green all the year, and demand admittance in all ſhrubbery collections; more eſpecially on the verges of wood-walks, and wilderneſſes, or any cloſe ſhrubbery compartments, under trees, &c. where they will proſper and increaſe the variety agreeably at all ſeaſons.

They may be propagated very abundantly, by off-ſet ſtalks, or ſuckers from the bottom; alſo by ſeed ſown an inch deep, which will come up the ſecond ſpring.

RUTA, RUE. Of the claſs and order *Decandria monogynia*.

It compriſes upright, buſhy, rank-ſcented ſhrubs, three, four or five feet high, garniſhed with ſmall, compound, ſupradecompound many-lobed, and ternate leaves; the branches terminated by umbellate bunches of yellow flowers, with five-parted cups, four or five oval petals, ten ſtamina, one ſtyle, and a five-lobed capſule full of angular ſeeds.

The ſpecies are,

1. RUTA *graveolens*, (Rank-ſmelling,) or Common Garden-Rue. *(Decompound leaves, and four-parted flowers.)*

Varieties.

Common Broad-leaved Rue.

Narrow-leaved Rue.

Variegated-leaved Rue.

2. RUTA *chalepenſis*, or Aleppo Rue. *(Supradecompound leaves; hairy ciliated flowers.)*

3. RUTA *patavina*, or Patavium Three-leaved Rue. *(Leaves three'd, cloſe-ſitting.)*

The Common Broad and Narrow-leaved Rue, merit cultivation in all kitchen-gardens, as medical plants, for domeſtic uſe; which alſo, together with the other varieties, and ſpecies, are proper to introduce in the ſhrubbery, for variety, being trained with a low ſingle ſtem and buſhy head.

They are propagated by ſlips, and cuttings of the young ſhoots, in ſpring and ſummer, in a ſhady border; alſo by ſeed, the Common Rue particularly, ſown in the ſpring, in a bed of light earth, and raked in; and when the plants are two or three inches high, prick them in a bed, or border, ſix inches aſunder, for a year or two, or more; then plant them out finally.

Great quantities of Rue plants are raiſed about London for the markets, being planted in rows, a foot or half a yard aſunder, and trained into ſhort buſhy plants, a foot or two high.

S.

SALIX, SALLOW, or WILLOW-TREE. Of the claſs and order *Dioecia diandria*.

It comprehends a large collection of deciduous trees, of the aquatic tribe, delighting in moiſt ſituations; proper as foreſt-trees, and as underwood for rods and poles; remarkable for their expeditious growth, attaining from twenty or thirty, to forty or fifty feet ſtature, when permitted to run for ſtandards; adorned in ſummer with moderate ovate

and

and long ſpear-ſhaped and oblong leaves; and male and female flowers, on different trees, collected in oblong imbricated amentums, each ſcale forming a calix to one floret, without petals; two male ſtamina; and in the females, a ſcarcely-viſible ſtyle; ſucceeded by an awl-ſhaped capſule, with ſmall downy ſeeds.

The ſpecies are conſiderable, and exhibit a conſpicuous variety in their different foliage, which in ſome is hoary, white and ſilvery, and in ſome ſmooth and green on both ſides.

1. SALIX *caprea*, Capreate Rough Willow, or Common Sallow-Tree. *(Ovate, rough, whitiſh leaves, downy underneath, waved above, denticulated.)*

Varieties.

Oblong acute-pointed leaved.

Elliptical-ſpear-ſhape-leaved, ſilky underneath, ear'd.

Variegated leaved.

2. SALIX *alba*, White, or Silvery Long-leaved Willow. *(Spear-ſhaped pointed ſawed leaves, downy and whitiſh on both ſides.)*

3. SALIX *viminalis*, or Oſier Willow. *(Long, ſlender, pliant, twiggy branches, and very long, narrow, ſpear-ſhaped, acute leaves, hoary and ſilky underneath.)*

4. SALIX *purpurea*, Norfolk Purple, or Red Willow. *(Spear-ſhaped, ſawed, ſmooth leaves; lower ones oppoſite.)*

5. SALIX *vitellina*, Golden, or Yellow Willow. *(Ovate, ſerrated, acute, ſmooth leaves; ſerratures griſtly; petioles callous-dotted.)*

6. SALIX *amygdalina*, or Almond-leaved Willow. *(Spear-ſhaped, ſerrated, ſmooth, green leaves, having foot-ſtalks; ſtipula trapeze-form.)*

7. SALIX *pentandria*, Pentandrious, or Broad-leaved Sweet-ſcented Willow. *(Oblongiſh, broad, ſawed, ſmooth, leaves; and pentandrious florets, or with five ſtamina.)*

8. SALIX *babylonica*, Babylonian Pendulous Salix, or Weeping Willow. *(Slender pendulous branches and ſhoots, and long, narrow, linear-ſpear-ſhaped, ſawed, ſmooth leaves.)*

This is of ſingularly beautiful growth, producing its numerous ſlender branches, and long flagellate ſhoots, in a bending pendulous manner, hanging looſely down all around; often reaching to the very ground.

9. SALIX

9. SALIX *Helix*, (*Helix*,) or Dwarf Roſe Willow. (*Spear-ſhaped linear, ſerrated, ſmooth leaves, oppoſite, above oblique*.)

10. SALIX *reticulata*, or Netted Round-leaved Lapland Willow. (*Ovate-obtuſe, ſmooth, intire leaves, netted underneath.*)

11. SALIX *hermaphroditica*, or Hermaphrodite Swediſh Shining Willow. (*Reddiſh branches; obtuſe, ſmooth, ſhining, ſerrated leaves.*)

12. SALIX *arenaria*, or Sand Willow. (*Ovate, intire, acute leaves, hairy above, and downy below.*)

13. SALIX *glauca*, or Glaucous-leaved Lapland Tough Willow. (*Ovate-oblong, greyiſh intire leaves; a little hairy underneath.*)

14. SALIX *aurita*, Aurited, or Eared-leaved Willow. (*Ob-ovate intire leaves; appendiculated, or eared at the baſe, and hairy on both ſides.*)

15. SALIX *fuſca*, or Brown Willow. (*Ovate intire leaves, hairy underneath, gloſſy.*)

16. SALIX *rubra*, or Red Willow. (*Spear-ſhaped, ſmooth, intire leaves.*)

17. SALIX *triandria*, Triandrious Shining-leaved Oſier Willow. (*Flexible pliant ſhoots; ovate-oblong, ſawed, acute, ſmooth leaves, and triandrious flowers, or with three ſtamina.*)

18. SALIX *lanata*, or Woolly Roundiſh-leaved Lapland Willow. (*Roundiſh acute leaves, woolly on both ſides.*)

19. SALIX *roſmarinifolia*, Roſemary-leaved Willow. (*Narrow, ſpear-ſhaped-linear, intire, ſtraight, ſeſſile leaves, downy underneath.*)

20. SALIX *fragilis*, Fragile, or Crack Willow. (*Brittle ſhoots, ovate-ſpear-ſhaped, ſerrated, ſmooth leaves; peticles dentate-glandulous.*)

21. SALIX *haſtata*, Haſtated, or Halbert-ſhape-leaved Lapland Willow. (*Almoſt-ovate, ſerrated, acute, ſmooth, ſeſſile leaves; ſub-hearted ſtipula.*)

Willows in plantations may be cultivated both for ſtandard foreſt trees, for their timber, for various light purpoſes; alſo as pollards, to produce top-ſtems for lopping for poles, &c. and are of particular value to plant in marſhy grounds, in low ſtools, to produce an annual crop of twigs and rods, to cut for the baſket-makers, and all kinds of wicker-work: likewiſe

likewiſe ſome of the beſt oſier kinds, and others with pliant ſhoots, are proper to plant in gardens, in low ſtools, in any moiſt or watery ſituation, to produce twigs for tying and binding various articles in gardening; ſuch as the branches of eſpalier-trees to the trellis; tying up the ſtems of new-planted young trees, to ſtakes, when neceſſary; and in the public nurſery-gardens, to bind bundles of young trees, that are to be ſent to a diſtance. You may likewiſe plant any, or all the ſorts, in ornamental grounds, to increaſe the variety; more eſpecially in any low watery or moiſt ſituation, or contiguous to water, in out-premiſes: they may alſo be formed into hedges. For all of which purpoſes, the trees are expeditiouſly raiſed both by cuttings of their young ſhoots, in lengths of one, two, or three feet, and of large ſtraight poles, of ſeveral years growth, cut one, two, or three yards long; which, being introduced into the ground a proper depth, in proportion to their length, will readily grow.

If deſigned for full ſtandard-trees, for timber, you may place them in any moiſt or boggy ſoils, or in any waſte ground, planted in cuttings of half a yard, or two or three feet length, or more; or long truncheons, or poles, of two or three yards, planted either in ſingle rows, or continued ranges, with the rows ſix feet aſunder, and three or four feet diſtant in the row, to allow for thinning for poles; introducing the ſmall cuttings half way into the earth: the larger long ones, inſert from half a yard, to two feet and a half deep: they will ſoon take root, and ſhoot vigorouſly in ſummer, if you prune off all lateral ſhoots, retain the ſtrongeſt upright leading ſhoot, and permit it to run up for a ſtem, and aſpire in height as faſt as poſſible.

Or, if deſigned to form ſtandard pollards, with trunks of only three or four yards long, to furniſh poles for lopping every five, ſix or eight years, you may plant cuttings of large poles, two or three yards long, by ditch ſides, or along the margins of brooks, rivulets, rivers, &c. making holes to introduce them two or three feet into the ground: they will root below, and ſend out many ſhoots above.

But to form oſier grounds, to produce rods and twigs, chuſe any waſte watery grounds, dug, &c. and having a quantity of cuttings of young ſhoots, of the moſt pliant kinds of Willows, in ſpring, cut into two feet and a half lengths, plant them in rows a yard diſtance, inſerting them half a yard deep; and they will furniſh ſhoots the enſuing ſummer,

fit

fit to cut in winter, &c. if wanted. Cut the whole close down to the head of the stools, and they will furnish a crop of twigs annually.

Or, when they are required for rods and poles for larger purposes, you may let them have two, three, or several years growth.

For garden use, plant short cuttings in any moist place, and they will produce shoots every year to cut down in winter for twigs.

Hedges of Willows may be planted along ditch sides, or any wet watery grounds, either for an expeditious shelter, fence, or blind; for which purpose, you may either plant strong short shoots, of half a yard, or two feet long, in a row half a foot asunder, and a foot or more deep, or larger long cuttings, of several feet length, which may be planted chequer-ways across one another: they will form a complete fence at once, and may be kept close and regular by an annual clipping.

For ornament and variety, you may employ any of the sorts, or as many as can be obtained, and disposed in assemblage with other aquatics, in any low or waste situations, where they will ornament the premises: but the Babylonian, or Weeping Willow particularly, has a fine effect, disposed singly by the sides of pieces of water, &c.

The propagation of all the sorts of Willow is principally by cuttings, either of the one or two years shoots, in lengths of one, two, or three feet, or more; or in truncheons, and long poles, of several years growth, cut from one, to two or three yards long. Plant them either by making holes with a dibble, or other instrument; or in soft wet soils, you may sometimes sharpen the ends of the cuttings, and thrust them into the ground; though it is most eligible to introduce them with an instrument.

SALSOLA, GLASS-WORT, and STONE-CROP-TREE. Of the class and order *Pentandria Digynia*.

It consists of a low, shrubby, maritime evergreen, with very small obtuse fleshy leaves, and small flowers, with five-leaved cups, no petals, five stamina, and two styles, succeeded by an oval one-seeded capsule.

The species is,

SALSOLA *fruticosa*, or Shrubby Glass-wort, or Stone Crop-Tree. *(Erect shrubby stalks, and filiform obtuse leaves.)*

Plant

Plant it in the ſhrubbery; and you may propagate it by ſuckers, layers, and cuttings.

SALVIA, SAGE-BUSH. Of the claſs and order *Diandria monogynia*.

They are under-ſhrubby evergreens, valuable for the kitchen garden, and occaſionally for variety in the ſhrubbery, &c. are of low buſhy growth, half a yard, or two or three feet high; adorned with oblong-ovate, and ſpear ſhaped leaves; and the branches terminated by ſpikes of ſmall blueiſh flowers, with monophyllous two-lipped cups, a monopetalous tubular corolla, gaping and bilabiated above; two ſtamina, one ſtyle, and four roundiſh ſeeds in the calix.

There is but one hardy ſhrubby ſpecies, which is the Common Garden Sage, compriſing ſeveral varieties, viz.

SALVIA *Officinalis*, or Common Officinal Garden Sage. *(Spear-ſhaped-ovate, intire, fine-notched leaves, and flowers growing in a ſpike.)*

Varieties.

Common Red Sage.
Green Broad-leaved, or Balſamic Tea-Sage.
Broad-leaved Hoary Balſamic Sage.
Narrow-leaved Hoary Sage, or Sage of Virtue.
Wormwood Sage.
Lavender-leaved Sage.
Variegated Red Sage.
Variegated Green Sage.

This ſpecies, and its varieties, are eminent aromatic plants, and of the pot-herb kind, for the kitchen garden; and alſo to be introduced in the front of ſmall ſhrubbery clumps, for variety; more particularly the variegated-leaved kinds.

The Red Sage is the moſt commonly eſteemed for general uſe, for the kitchen; the others by way of medicine; and the Balſamic Sage, and Sage of Virtue, for tea, particularly the former; though all the varieties may be uſed indifferently for any of the above purpoſes; being diſpoſed in beds or borders, in rows fifteen or eighteen inches aſunder, and trained in low buſhy plants, and the young ſhoots and leaves cropped for uſe as wanted.

They are propagated by ſlips and cuttings of the young ſhoots, in March, April, May, and June, both of the former

former and ſame year's growth; and alſo by off-ſet rooted ſuckers from the bottom, and by parting the roots.

The cuttings and ſlips of the former year's ſhoots may be taken off for planting in March and April; but the young ſhoots of the year will not be ready till May and June. Cut or ſlip off a quantity of the robuſt outſide ſhoots, of from three or four, to five or ſix inches long: ſtrip off the under leaves, give the bottom a little twiſt, and plant them in a ſhady border, in rows ſix inches aſunder, inſerting them almoſt to their top: they will ſoon emit roots, and ſhoot at top. Generally pinch down the firſt ſpindling ſhoots, to make the young plants bottom well.

Likewiſe, in Sage plants, grown buſhy quite from the bottom, many of the under branches ſtrike root in the earth, which may be ſlipped off with roots; or the whole, divided into rooted ſlips, planted at once where they are to remain.

SAMBUCUS, ELDER-TREE. Of the claſs and order *Pentandria trigynia.*

The Elder comprehends deciduous tree and ſhrub kinds, of the berry-bearing tribe, for uſe and variety, and their berries for elder-wine; aſſuming a moderate growth, with large ſhoots full of pith, garniſhed with pinnated leaves, of two or three pair of lobes, terminated by an odd one; and ſmall wheel-ſhaped flowers, in large umbellate ſpreading cluſters; having ſmall five-parted cups, a monopetalous five-parted corolla, five ſtamina, an oval germen, with three ſtigmas, ſucceeding to roundiſh three-ſeeded berries, ripe in Auguſt and September.

The ſpecies are,

1. SAMBUCUS *nigra.* Black-berried, or Common Elder-Tree. *(A tree ſtem, and large cymoſe five-parted white umbels.)*

Varieties.

Common Elder, with black berries.
White-berried Elder.
Green-berried Elder.
——*(laciniata,) Laciniated, or Jagged-leaved, called Parſley-leaved Elder.*
Gold-ſtriped-leaved.
Silver-ſtriped-leaved.
Silver-duſted-leaved.

2. SAMBUCUS

2. SAMBUCUS *canadenſis*, Canada Shrubby Elder. *(Shrubby ſtalks, ſomewhat bipinnated, ſeven or nine-lobed leaves, and five-parted cymoſe umbels.)*

3. SAMBUCUS *racemoſa*, Racemoſe-flowering, or Red-berried Mountain Elder. *(Tree ſtem, and racemoſe compound ovate cluſters of flowers, and red berries.)*

Theſe trees may be introduced any where in outward plantations; the Common Elder particularly, both among the foreſt-trees, and as a fruit-tree for its berries, for making elder-wine; for which, chuſe principally the Black-berried kind; which may be trained both in detached ſingle ſtandards, and in hedge rows, or along ditch ſides, or in any bye or waſte place, as it will grow any where; or it may be formed in rough hedges, to run up at top, without clipping: in all of which ways it will bear abundant crops of berries annually, which are good to make a moſt excellent cordial wine.

But the Common Elder is alſo employed, occaſionally, in forming fencible hedges expeditiouſly along the tops of banks, ſides of ditches, &c. which is effected by planting cuttings of the ſtrong young ſhoots in ſpring, either ſhort cuttings of half a yard or two feet length, or thoſe of a yard or two long, planted either ſlanting into the ſide of a bank, or on the top of the bank in an upright direction, or on level ground: or you may plant long ſtout cuttings, of a yard or two in length; and if diſpoſed acroſs one another, chequer-ways, they will form an immediate fence. Obſerve, that as theſe hedges will ſhoot ſtrongly, they muſt be clipped every year, to render them thick and regular.

For variety, in plantations, you may introduce both the Common Elder and its different varieties, diſpoſed thinly in aſſemblage with the Canada Elder, and Racemoſe kind, in the deciduous collections, in continued out-plantations, to increaſe the diverſity.

All the ſorts are propagated by cuttings of the young ſhoots; alſo by the ſeed, or berries. Cuttings of the laſt ſummer's ſhoots, of from one or two, to four, five, or ſix feet long, will readily grow, planted any time from October to March, in open weather. Likewiſe the ſeed, or berries, ſown in autumn an inch deep, will riſe abundantly next ſpring.

SANTOLINA, Lavender Cotton. Of the claſs and order *Syngeneſia polygamia æqualis.*

It compriſes low, under-ſhrubby, buſhy, aromatic evergreens, for ornament and medical uſe; growing two or three feet high, with very cloſe buſhy heads, adorned with minute, hoary white, ſimple leaves; and the branches terminated by pale-yellow compound flowers, with hemiſpherical general cups, containing numerous ſmall funnel-ſhaped hermaphrodite florets, having five hairy ſtamina, tetragonous germen, and filiform ſtyle, ſucceeded by four-cornered ſeeds.

The ſpecies are,

1. Santolina *Chamæ-Cypariſſus*, (*Chamæ-Cypariſſus,*) Dwarf Cypreſs, or Common Lavender Cotton. (*Dentated hoary leaves, ranged four ways, and peduncles ſupporting one flower.*)

2. Santolina *roſmariniſolia*, or Roſemary-leaved Lavender Cotton. (*Linear hoary leaves, with tuberculated margins, and peduncles ſuſtaining one flower.*)

Varieties,

Greater Roſemary-leaved Lavender Cotton, with hoary leaves.

Minor Roſemary-leaved Lavender Cotton, with hoary leaves.

Green-leaved.

Large-flowered.

Villous-hoary-leaved.

Theſe ſhrubby plants are proper both to retain in kitchen gardens, for medicinal uſes, &c. and to diſpoſe in the front of ſhrubberies, where they will form a ſingular variety at all ſeaſons of the year, being trained with buſhy heads; and you may propagate them by ſlips, and cuttings of the young ſhoots, in March, April, and May, &c. planted in a ſhady border.

SATUREIA, Savory. Of the claſs and order *Didynamia gymnoſpermia.*

It is a very low ſhrubby aromatic, about a foot, or eighteen inches high, both for the collection of pot-herbs in the kitchen garden, and for variety, &c. garniſhed with ſmall narrow ſpear-ſhaped leaves, and ſmall ringent flowers, with tubulous five-parted cups and corolla, two long and two ſhort ſtamina, a quadrifid germen and briſtly ſtyle, and four roundiſh naked ſeeds lodged in the calix.

The

The ſpecies is,

SATUREIA *montana*, Mountain, or Common Winter Savory.

Cultivate it in the kitchen garden, diſpoſed either by way of an edging, or in ſingle buſhy plants in a bed or border, in rows, a foot or eighteen inches aſunder. You may plant ſome to diverſify the front of ſhrubbery clumps, &c.

It may be propagated both by ſlips, and cuttings of the young ſhoots, in ſpring and ſummer; and by ſeed ſown in a bed of light earth in March or April, and raked in evenly; and let the ſeedlings, &c. be planted out, as above, in ſummer, autumn, or ſpring following.

SIDEROXYLON, IRON-WOOD. Of the claſs and order *Pentandria monogynia*.

There is one hardy deciduous ſpecies for the ſhrubbery, of the ſhrub kind, adorned with ſpear-ſhaped ſhining leaves, and bell-ſhaped five-parted flowers, with five ſtamina, one ſtyle, and roundiſh four-ſeeded berries.

The ſpecies is,

SIDEROXYLON *lycioides*, (Lycium-like,) or Thorny Canada Iron-wood. *(Spinoſe branches, and deciduous leaves.)*

Introduce it in the ſhrubbery collection, to increaſe the variety. You may propagate it by layers, and cuttings of the young ſhoots, and by ſeeds in the ſpring.

SMILAX, ROUGH BINDWEED. Of the claſs and order *Dioecia hexandria*.

They are trailing ſhrubby evergreens, with rough prickly climbing ſtalks, mounting by claſpers, or tendrils upon ſupport; adorned with heart-ſhaped and ovate ſtiff leaves, and bunches of ſmall whitiſh male and female flowers, on ſeparate plants, with ſix-leaved bell-ſhaped cups, no petals, ſix ſtamina, or antheræ, and oval germen, with three ſtyles, ſucceeded by a globular berry, with two ſeeds.

The ſpecies are,

1. SMILAX *aſpera*, Rough Italian Smilax, or Common Rough Bindweed. *(Prickly angular ſtalks, and heart-ſhaped, prickly, nine-nerved leaves.)*

2. SMILAX *rotundifolia*, or Round-leaved Canada Smilax. *(Prickly cylindric ſtalks; ſmooth, roundiſh-heart-ſhaped, pointed, moſtly ſeven-nerved leaves.)*

3. SMILAX *tamnoides*, (Tamnus-like,) or Black Briony-leaved Carolina Smilax. *(Prickly cylindric ſtalks, oblong heart-ſhaped, ſmooth leaves, with ſeven nerves.)*

4. SMILAX *laurifolia*, or Laurus-leaved Virginia Smilax. *(Prickly round ſtalks, ovate-ſpear-ſhaped ſmooth leaves, with three nerves,)*

5. SMILAX *Sarſaparilla*, *(Sarſaparilla,)* or Ivy-leaved Virginia Smilax. *(Prickly angular branches, and ovate-retuſe-dagger-pointed, trinervous, ſmooth leaves.)*

6. SMILAX *excelſa*, or Talleſt Eaſtern Smilax. *(Prickly angular ſtalks, and heart-ſhaped, nine-nerved, ſmooth leaves.)*

7. SMILAX *China*, (*China radix*,) China-root, or Japaneſe Rough Bindweed. (*Stem prickly-cylindric*; *leaves ovate-hearted, unarmed, five-nerved.*)

All theſe plants demand admittance in large ſhrubberies, as climbers; and in thickets, groves, and the borders of wood-walks, &c. being allowed either the ſupport of ſtakes, or to aſcend upon buſhes, ſhrubs, and trees. They will exhibit an eligible variety, as well as appear ornamental the year round, in their evergreen leaves.

They are propagated by layers, and cuttings of the young ſhoots, by ſuckers, and dividing their ſpreading roots; to be performed in autumn, or the ſpring: likewiſe by ſeed ſown in ſpring, in a warm border, or in pots, and forwarded in a hot-bed. Have alſo ſome young ſeedling plants in pots, to move to ſhelter of a frame, the firſt winter or two, from froſt, and to be then planted in the full ground.

SOLANUM, NIGHTSHADE. Of the claſs and order *Pentandria monogynia*.

It furniſhes one hardy deciduous ſhrubby climber, with long flexuous ſlender ſtalks; ornamented in ſummer with ſpear and halbert-ſhaped leaves, and bunches of ſmall wheel-ſhaped flowers, having five-lobed cups, a five-pointed ſpreading corolla, five ſtamina, terminated by oblong-erect gathered antheræ, a roundiſh germen, and one ſtyle, ſucceeded by a roundiſh berry.

The ſpecies is,

SOLANUM *Dulcamara*, *(Dulcamara,)* Bitter-Sweet, or Woody Nightſhade. *(Flexuous winding ſmooth ſtalks, the upper leaves halbert-ſhaped, and cymoſe cluſters of flowers.)* Grows wild in hedges in England, &c.

Varieties,

Common Purple-flowered.

White-flowered.

Silver-

Silver-ſtriped-leaved.
Gold-ſtriped-leaved.

Plant them in the ſhrubbery, as climbers, to run upon buſhes, &c. and to train to ſtakes. The variegated kinds are in moſt eſteem; but all the ſorts are eligible to form variety; and may all be propagated by layers, and cuttings of the young branches in the ſpring; the common ſort alſo by ſeed.

SORBUS, *(Sorb,)* or SERVICE-TREE. Of the claſs and order *Icoſandria trigynia.*

They are tall deciduous tree kinds, of the berry-bearing tribe; one as a fruit-tree, the other for variety, and the foreſt-tree collection; both of them garniſhed with winged leaves, of eight or nine pair of lobes, terminated by an odd one; and the young branches terminated by umbellate bunches of flowers; with ſpreading concave cups, five roundiſh petals, twenty or more ſtamina, an oval germen, with three ſtyles, ſucceeded by roundiſh ſoft red berries, attaining in the firſt ſpecies the ſize of little Pears or Apples, and eatable; the other much ſmaller, berry-like, and not eatable; and each ſort with four or five ſeeds.

The ſpecies are,

1. SORBUS *domeſtica*, Domeſtic, or Cultivated Sorbus-Tree. *(Pinnated leaves, hairy-downy underneath, and largeſt fruit, Pear and Apple-ſhaped.)* Good to eat when become ſoft and tender.

Varieties.

Pear-leaved Sorbus-Tree.
Pear-ſhaped fruit.
Apple-ſhaped fruit.

2. SORBUS *aucuparia*, *(Catch-Bird Service,)* Wild Service-Tree, or Mountain Aſh. *(Pinnated leaves, ſmooth on both ſides, and large bunches of red berries, not eatable.)*

They are both of upright ſtraight growth, twenty or thirty feet high, or more. The firſt ſort is often admitted in the fruit-tree collection, principally as full and half ſtandards, in the garden and orchard, pleaſure-ground, &c. producing their ripe fruit in autumn; which, when become ſoft and mellow, eats with an agreeable flavour.

But both the ſpecies are cultivated in ornamental plantations, for the beauty of their winged leaves; and their bunches of ripe fruit appear very ornamental in autumn, therefore may be diſpoſed any where for ornament, in ſhrub-

berries, continued plantations, clumps, &c. or dropped ſingly in pleaſure-grounds, lawns, parks, &c.

The Mountain Aſh may alſo be introduced among the foreſt-trees, both for ſtandards and underwood.

They are propagated by ſeed ſown in autumn, in beds of light earth, an inch deep; and the young plants, at one or two years old, planted out in nurſery-rows, and trained with ſingle ſtems for ſtandards.

But the deſirable varieties of the cultivated Service, when deſigned as fruit-trees, are propagated by grafting upon ſeedling ſtocks, of either of the two ſpecies.

SPARTIUM, Broom. Of the claſs and order *Diadelphia decandria.*

It comprehends ſeveral ſhrubby ſpecies, with erect green branches, cultivated to diverſify the pleaſure-ground; garniſhed with narrow, ſimple, and trifoliate leaves, and long ſpikes of papilionaceous, or butterfly-ſhaped yellow and white flowers, with tubulous heart-ſhaped cups; a corolla with a heart-ſhaped ſtandard; ſhort oval wings, and oblong keel; ten diadelphous ſtamina, and oblong germen, with an awl-ſhaped ſtyle; ſucceeded by long obtuſe unilocular pods, with kidney-ſhaped ſeeds.

The ſpecies of note are,

1. Spartium *Junceum*, Ruſhy Spartium, or Spaniſh Broom. *(Cylindric oppoſite ruſhy branches, floriferous at top, ſpear-ſhaped leaves, and ſpikes of yellow flowers, of a ſweet fragrance.)*

Varieties.

Common Single-flowered.

Double-flowered.

2. Spartium *monoſpermum*, or Single-ſeeded Spaniſh Broom. *(Angular branches, ſpear-ſhaped leaves, lateral cluſters of white flowers, and pods with only one ſeed.)*

3. Spartium *radiatum*, or Radiated Starry Broom. *(Angular oppoſite branches; linear trifoliate leaves, diſpoſed in a radius round the ſtalk; petioles perſiſtent.)*

4. Spartium *ſcoparium*, *(Beſom Broom,)* or Common Engliſh Broom. *(Angular ſmooth branches, and trifoliate and ſingle leaves.)* Grows wild on waſtes and commons in England, &c. In ſome places much uſed for houſe beſoms.

5. Spartium *ſpinoſa*, or Thorny South European Broom. (*Branches angular thorny, leaves three-folioled.*)

6. Spartium

6. SPARTIUM *Scorpius*, (*Scorpius*,) or Spreading-branched Spaniſh Broom. (*Branches ſpinous ſpreading, leaves ovate.*)

7. SPARTIUM *album*, or White Broom.

The firſt three ſpecies, natives of Spain and Italy, are cultivated in our Engliſh ſhrubberies, as ornamental flowering ſhrubs. Likewiſe the Common Broom is often admitted in collections, to increaſe the variety; and makes alſo a good appearance when in flower. Train them all with ſingle ſtems, and full heads; and they will flower ornamentally in June and July, and ripen ſeeds in autumn.

They are propagated by the ſeed, ſown in the ſpring, (March and April,) in beds of light earth, drilled in half an inch deep; and when the ſeedling plants are of one or two ſummers' growth, may be planted out in autumn or ſpring, in rows in a ſheltered part of the nurſery, to remain for training to a proper ſize for the ſhrubbery.

SPIRÆA, SPIRÆA FRUTEX. Of the claſs and order *Icoſandria pentagynia*.

The *Spiræas* are eminent deciduous ornamental flowering ſhrubs, riſing with upright ſtalks, from three or four, to eight or ten feet high, in the different ſpecies; garniſhed with ſpear-ſhaped, oval, oblong, and lobated leaves, and ſpikes, and bunches of red and white flowers; having one-leaved five-parted cups, five roundiſh petals, twenty or more ſtamina, and five germina and ſtyles; ſucceeded by oblong compreſſed capſules, with ſmall ſeeds.

The ſpecies of moſt note are,

1. SPIRÆA *ſalicifolia*, or Willow-leaved Spiræa Frutex. (*Spear-ſhaped, obtuſe, ſawed, naked leaves, and double racemoſe ſpikes of red flowers.*)

2. SPIRÆA *crenata*, or Crenated Spiræa, with white flowers. (*Oblongiſh leaves, crenated, ſawed at the top, and lateral umbels of white flowers along the ſides of the branches.*)

3. SPIRÆA *hypericifolia*, or Hypericum-leaved Spiræa, called Hypericum Frutex. (*Long ſlender branches, inverſe-ovate intire leaves; and numerous ſmall ſeſſile umbels of white flowers, along the ſides of the ſtalks.*) Very ornamental the whole length of the branches.

4. SPIRÆA

4. SPIRÆA *opulifolia*, or Guelder-Roſe-leaved Spiræa, called Virginia Guelder-Roſe. (*Lobated ſawed leaves, and terminal roundiſh umbels of white flowers.*)

5. SPIRÆA *tomentoſa*, Tomentoſe, or Downy-leaved Red Spiræa. (*Spear-ſhaped unequally-ſawed leaves, downy underneath, and thick double racemoſe cluſters of beautiful red flowers.*)

6. SPIRÆA *chamædrifolia*, or Germander-leaved Siberian Spiræa. (*Ovate cut-ſawed ſmooth leaves; umbels peduncled.*)

7. SPIRÆA *ſorbifolia*, or Sorbus-leaved Siberian Spiræa. (*Pinnated leaves, folioles uniform ſawed, flowers panicled.*)

8. SPIRÆA *argentea*, or Silvery Wedge-form-leaved Spiræa.

9. SPIRÆA *triloba*, or Three-lobed-leaved Spiræa.

10. SPIRÆA *Japanica*, or Japaneſe Downy-ſtemm'd Spiræa.

Theſe are all choice ornamental flowering ſhrubs, for the principal ſhrubbery. Diſpoſe them in the moſt conſpicuous compartments adjacent to the main walks and lawns, in which they may either be permitted to grow with ſeveral ſtalks, or kept to ſingle ſtems, clearing off all ſuckers from the root annually; and they will flower very ornamentally in June and July, and the Willow-leaved Spiræa alſo often in autumn.

They are propagated by ſuckers and layers. Several of the ſorts ſend up abundant ſuckers from the bottom, which may be dug up in autumn, winter, or ſpring, with roots, and planted in nurſery rows; or the largeſt at once where they are to remain; and layers of the young ſhoots will be well rooted in one year.

STAPHYLÆA, BLADDER NUT-TREE. Of the claſs and order *Pentandria trigynia*.

They are ſingular deciduous flowering ſhrubs, riſing with ſeveral ſtems in a buſhy manner, eight or ten feet high, adorned with pinnated and trifoliate leaves, and long bunches of pentapetalous white flowers, at the ſides of the branches, having large concave coloured cups, a corolla of five oblong petals, five ſtamina, and a thick three-parted germen, with three ſtyles; ſucceeding to large, three-cornered, bladder capſules, containing globular, hard, nut-like ſeeds; ripe in autumn.

There

There are only two ſpecies, viz.

1. STAPHYLÆA *pinnata*, or Pinnated Bladder-Nut. *(Pinnated leaves, of two pair of oval lobes, terminated by an odd one.)* Grows wild in woods in England, &c.

2. STAPHYLÆA *trifoliata*, Trifoliate, or Three-leaved Virginia Bladder-Nut. *(Ternate leaves, of three oval lobes, and larger flowers.)*

They may be introduced in any of the ſhrubbery compartments, to increaſe the variety, and will effect a ſingularity in their bladder-like capſules, in autumn.

Both the ſpecies may be propagated by ſuckers from the root, layers and cuttings of the young ſhoots, and by ſeed ſown in autumn, &c. in beds of light earth, an inch deep.

STEWARTIA, *(Stewartia.)* Of the claſs and order *Monadelphia polyandria.*

This is a curious American flowering ſhrub, of upright growth, ſix or eight feet high, ornamented with ovate-lanceolate, ſerrated, veined, alternate leaves, and large ſpreading white flowers, with monophyllous five-lobed cups, five oval ſpreading petals, numerous monadelphous purple ſtamina, ſurrounding a roundiſh germen, with five ſtyles, ſucceeded by a five-cornered, quinquelocular capſule, having five ſeeds.

There is but one ſpecies, viz.

STEWARTIA *Malacodendron, (Malacodendron,)* or Virginia Stewartia. *(Ovate-oblong leaves, acutely ſawed.)*

Varieties.

Red-petioled.

Green-petioled.

It demands culture in all curious ſhrubberies, and is propagated by ſeed ſown in the ſpring, in an eaſtern expoſure. You may alſo try them by cuttings of the young ſhoots, aſſiſted by a hot-bed; giving ſhelter from ſevere froſt, in their infant growth.

STYRAX, STORAX-TREE. Of the claſs and order *Decandria monogynia.*

It is an upright gummiferous exotic ſhrub, with a woody branching ſtem, of ten or twelve feet growth, adorned with moderate, ovate, intire, alternate leaves, hoary underneath; and bunches of funnel-ſhaped flowers, with cylindric five-parted cups, a monopetalous, funnel-ſhaped corolla,

corolla, tubulous below, but ſpreading above in five large ſegments; ten ſtamina, ſurrounding a round germen, with a ſingle ſtyle, ſucceeded by a roundiſh unilocular fruit, with two nuts.

Only one ſpecies, viz.

STYRAX *officinale*, or Common Officinal Storax-Tree.

This ſhrub produces, by inciſion, a liquid gum, uſed in medicine; is a native of Syria and Italy, &c. and requires a ſheltered part of the ſhrubbery, or to be trained againſt a ſouth wall.

It is propagated by ſeed ſown in the ſpring, in pots, to be forwarded in a hot-bed; the young plants being allowed ſhelter from froſt, two or three years; then planted in the full ground; alſo by layers, &c.

SYRINGA, LILAC-TREE. Of the claſs and order *Diandria monogynia*.

It comprehends two very eminent ornamental flowering ſhrubs, of the deciduous tribe; the firſt of which grows twelve or fifteen feet high, or more; the other but five or ſix, garniſhed with oval-heart-formed and ſpear-ſhaped leaves; and the young ſhoots terminated by large paniculated bunches of numerous, ſmall, white and purple very ornamental flowers, having one-leaved tubulous cups, a monopetalous corolla, tubulous below, but ſpreading in four parts above; two ſtamina, and oblong germen, with one ſtyle, ſucceeding to an oblong capſule, with two acute ſeeds.

There are but two ſpecies, viz:

1. SYRINGA *vulgare*, or Common Lilac. *(Ovate-heart-ſhaped leaves.)* Grows upright with firm erect branches, terminated by large erect panicles of fragrant flowers.

Varieties.

White-flowered Common Lilac.
Blue-flowered Lilac.
Purple-flowered, or Scotch Lilac.
Bloached-leaved Lilac.

2. SYRINGA *perſica*, or Perſian Lilac. *(Narrow ſpear-ſhaped intire leaves.)* Grows with ſlender pliable branches, terminated by long ornamental panicles of flowers.

Varieties.

Purple-flowered Perſian Lilac.
White-flowered Perſian Lilac.
(laciniata,) Laciniated, or Cut-leaved Perſian Lilac.

Theſe fine ſhrubs ſhould be introduced abundantly in all ſhrubberies, and pleaſure-grounds, for ornament: they produce a profuſion of flowers in elegant panicles, in May and June, making a very diſtinguiſhable and beautiful appearance.

They are all eaſily propagated, with expedition and plenty, by ſuckers from the root, which the Common Lilac particularly ſends up annually, in vaſt abundance: likewiſe by layers of the young branches; though all the ſorts afford plenteous ſuckers, which may be taken up with roots, any time from October till March, planted in nurſery rows, and trained with ſingle ſtems, and branchy regular heads.

The Common Lilacs may alſo be raiſed from ſeed ſown in autumn, from which abundant young plants will riſe in the ſpring.

T.

TAMARIX, Tamarisk-Tree. Of the claſs and order *Pentandria trigynia*.

It furniſhes two ſingular deciduous tree and ſhrub kinds, garniſhed with very ſmall, narrow, finely-divided, imbricated, ſmooth leaves; and the branches terminated by ſmall cloſe ſpikes, of numerous, minute, cloſely-placed reddiſh flowers, with five-parted cups, five oval petals, five or ten ſtamina, three ſtyles, and oblong three-cornered unilocular capſules, with many downy ſeeds.

The ſpecies are,

1. Tamarix *gallica*, or French Tamariſk. *(Flowers with five ſtamina.)*

2. Tamarix *germanica*, or German Tamariſk. *(Flowers with ten ſtamina.)*

Both the ſpecies effect a pretty variety in the ſhrubbery collection: the firſt ſort affecting a moderate tree growth, with ſpreading declining branches; the ſecond, that of a ſhrubby nature, growing erectly, and both of which flower in July, and ſometimes ripen ſeeds in autumn.

Propagate them by layers of the young ſhoots, and cuttings thereof, in a ſhady border, in ſpring.

TAXUS,

TAXUS, YEW TREE. Of the claſs and order *Dioecia monadelphia*.

The Yew is an eminently noted bacciferous evergreen tree, famous in ancient gardening, in forming ornamental hedges, and various fancy figures; and is alſo proper to introduce occaſionally as rough ſtandards, in pleaſurable plantations, and in the foreſt-tree collection: is very cloſely garniſhed with ſmall narrow dark-green leaves, the year round; and ſmall male and female flowers, on ſeparate trees, in ſmall cluſters at the ſides of the branches; having neither cups nor petals, but a four-leaved gem, or cover; numerous columnar ſtamina, an oval acute germen, crowned by an obtuſe ſtigma, ſucceeded by a ſucculent red berry, containing one oblong ſeed.

1. TAXUS *baccata*, or Berry-bearing Common Yew-Tree. *(Leaves growing near together.)* Grows wild in England, &c. riſing in its natural ſtate with a large ſtem, and very ſpreading branches.

2. TAXUS *nucifera*, or Nut-bearing Japaneſe Yew-Tree. *(Leaves growing at a diſtance.)* Is but rare in England.

In gardening, the Yew-Tree may be employed in rough ſtandards, in ornamental plantations, and for hedges, or in any kind of regular trained figures, as it may be moſt eaſily formed in any deſired ſhape, by clipping once or twice in the ſummer, with garden-ſhears, either in hedge-work, or any detached object: but is peculiarly calculated for forming a moſt beautiful cloſe evergreen hedge, both for defence againſt cutting blaſts, and for ornamenting the premiſes.

It is now alſo introduced in rough ſtandards, in ſhrubberies, and all hardy plantations, to increaſe the variety; and permitted to branch out with a full head in its natural way.

Yew is alſo proper to arrange in the foreſt-tree plantations, to grow to timber; trimming up the lower branches gradually.

It is propagated by ſowing the berries in autumn, ſoon after they are ripe, in a bed of light earth, half an inch deep. They will come up, ſome in the following ſpring, others not till the year after: and when the plants are of two years growth, in the ſeed-bed, plant them out in nurſery-

ſery-beds, in rows, a foot aſunder; and having two or three years growth here, then tranſplant them in wide rows, and train them for the purpoſes intended.

TEUCRIUM, TREE GERMANDER. Of the claſs and order *Didynamia gymnoſpermia.*

It furniſhes, for this diviſion, ſome diminutive, under-ſhrubby plants, of Italy, France, Spain, &c. proper for variety in the ſhrubbery, of from about half a yard, to two or three feet high, adorned with ſmall heart-ſhaped and ovate leaves, and the branches terminated by whorled ſpikes and racemes of ſmall, ringent, whitiſh-yellow flowers; having five-lobed cups, a monopetalous grinning corolla, tubular below, and the lips divided and ſpreading; two ſhort and two long ſtamina, a four-parted germen, with a ſingle ſtyle, ſucceeded by four naked ſeeds.

The ſpecies for this place are,

1. TEUCRIUM *flavum*, Yellowiſh Italian Teucrium, or Common Tree Germander. *(Shrubby ſtalks, heart-ſhaped obtuſely-ſawed leaves; flowers by threes, in a racemus.)*

Varieties.

Yellowiſh-flowered.

Pale-white-flowered.

Purple-flowered.

2. TEUCRIUM *lucidum*, or Shining-leaved Tree Germander. *(Erect ſmooth ſtalks; ovate acutely-cut-ſawed, ſmooth, ſhining leaves, and axillary flowers by pairs and threes.)*

3. TEUCRIUM *Marum*, (*Marum*,) Common Marum, or Syrian Maſtic. *(Small ovate entire leaves, acute at both ends, foot-ſtalked, and hoary underneath; flowers in racemous cluſters, ranged on one ſide.)* It is a ſmall hoary plant, ſingular in being ſo greatly liked by the cats, that they often eat and deſtroy it; whence it is called Cat Thyme.

Theſe, being low buſhy ſhrubs, are proper to adorn the fronts of the ſhrubbery; and, being ſomewhat tender, ſhould have a dry warm ſituation. Likewiſe, keep ſome in pots, for ſhelter in winter.

Propagate them by ſlips, or cuttings of the young ſhoots, in ſpring and ſummer, in a ſhady border, ſupplying them with plenty of water, and they will ſoon be well rooted.

THEA, TEA-TREE. Of the claſs and order *Polyandria monogynia.*

This genus furniſhes thoſe two celebrated deciduous ſhrub kinds, Bohea and Green Tea, univerſally famous for producing the leaves, of which is made that well-known domeſtic article, Tea. They are ſlender ſhrubs, garniſhed with ovaliſh and ſpear-ſhaped-ovate, ſawed, ſmooth nervous leaves, two or three inches long, or more; and large whitiſh red flowers, having ſmall five or ſix-leaved cups, ſix, and nine oval petals, numerous ſtamina, and one ſtyle, ſucceeded by tricapſular fruit, three-celled, containing each one ſeed.

There are two ſpecies, viz.

1. THEA *Bohea*, (*Bohea*,) or Bohea-Tea Shrub. (*Flowers having ſix petals, with ovaliſh alternate leaves, dark-green.*)

2. THEA *viridis*, or Green-Tea Shrub. (*Flowers having nine petals, with ſpear-ſhaped ſawed leaves, light-green.*)

They are natives of Japan and China, but are hardy enough to live here in the open ground, in a warm ſituation, and may be diſpoſed in ſheltered conſpicuous parts of the ſhrubbery, and pleaſure-ground, for ornament and variety.

They may be propagated by layers of the young wood, and cuttings of the young ſhoots, in pots, and forwarded in a hot-bed, in the ſpring; afterwards planted in the full ground, being ſheltered from froſt till they gain a little ſtrength; alſo by ſeed, when it can be obtained good; and may be ſown in pots, and planted in a hot-bed.

Theſe ſhrubs, in China, are cultivated in vaſt abundance, for their leaves, of which the Chineſe make a valuable merchandize to all parts of Europe.

The leaves are plucked for making Tea, in three different gatherings annually: the firſt gathering of the youngeſt leaves is ſuperior to the reſt, and is called Imperial Tea; the ſecond gathering is next in goodneſs of flavour; and the third gathering is inferior to the others.

But in each gathering, the leaves being plucked promiſcuouſly as they come to hand, care is afterwards taken, previouſly to their uſual preparation, to arrange them into different claſſes, according to their ſize and goodneſs; which produces the different qualities and prices of the prepared Tea; and of the laſt, or third gathering, particularly, when the leaves are of full growth; they being

ſorted

ſorted into claſſes, the loweſt of which, being compoſed of the oldeſt leaves, is the coarſeſt and cheapeſt ſort of Tea.

After the leaves are gathered, they are prepared into the form we receive the Tea in from abroad, by drying them when freſh, over a fire, in an iron pan; ſtirring them about, and rolling them when hot, with the palm of the hand, on a mat, or canvas, till they curl up: then, when cold, it is put up in ſome veſſel, and kept very cloſe from the air, either in China jars, or caniſters, or in cheſts lined with lead, in which we receive it from China.

THUYA, ARBOR-VITÆ, (*Tree of Life.*) Of the claſs and order *Monœcia monodelphia.*

This genus retains lofty ornamental evergreen trees, of the ſmall, imbricated-leaved kind, natives of America and China, where they grow forty or fifty feet high, branchy to the bottom, with the branches ſpreading, and flat fanned young ſhoots, garniſhed with minute leaves, placed *imbricatim* (over one another,) and male and female flowers, ſeparated on the ſame tree, the males in oval amentums, and the females in ovaliſh cones, conſiſting of many ſcales, each forming a cup to ſmall florets, without petals; in the males, four ſtamina, and in the females, a germen and ſtyle; and the female flowers ſucceed to an oblong-oval ſcaly cone, each ſcale having an oblong winged ſeed; ripe in winter and ſpring.

The ſpecies are,

1. THUYA *occidentalis*, Occidental, or Common American Arbor vitæ. *(Dark-green leaves, and ſmooth cones, with obtuſe ſcales.)*

Varieties.

Striped-leaved American Arbor-vitæ.

Sweet-ſcented American Arbor-vitæ.

2. THUYA *orientalis*, Oriental, or Chineſe Arbor-vitæ. *(Light-green leaves, and rugged cones, with pointed reflexed ſcales.)*

Theſe elegant trees are capital for all ornamental garden-plantations, and to diſpoſe ſingly on graſs-ground, and in large borders, or where they may appear conſpicuous to the ſight; for they make a fine appearance the year round; the American ſort appearing of a dark-green colour, and the Chineſe kind more bright and chearful, which latter is

conſiderably the moſt ornamental of the two: but both ſorts ſhould be admitted as firſt-rate ornamental trees, trained as ſtandards, with their full branches, only trimming any lower ſtragglers.

They are propagated by ſeed, and by layers, and cuttings of the young ſhoots, all of which grow freely in the open ground.

Sow the ſeed in the ſpring, either in an eaſt border of light earth, half an inch deep, or in pots plunged in the ſame ſituation, and moved to ſhelter of a frame, in froſty weather, in the winter following. The ſeedling plants of a year old muſt be planted out in beds, and in a year or two after, tranſplanted in wide nurſery-rows, to be trained up with their leading ſhoot entire, and permitted to branch freely on every ſide.

Layers, and cuttings of the young ſhoots, performed in autumn or ſpring, will readily grow, and be properly rooted for planting out in the autumn or ſpring following, in nurſery-rows, for training to a proper ſize.

THYMUS, THYME. Of the claſs and order *Didynamia gymnoſpermia.*

It conſiſts of diminutive, under-ſhrubby, buſhy, aromatic plants, from ſix or eight inches to a foot high, for the kitchen-garden, and the fronts of ſhrubbery-clumps; garniſhed with very minute oval and ſpear-ſhaped leaves and ſpikes, and heads of ſmall purpliſh and white flowers, with one-leaved cups and a corolla, divided into two lips of two and three lobes; four ſtamina, a four-parted germen, and one ſtyle, ſucceeded by four ſmall roundiſh ſeeds in the calyx.

The ſpecies are,

1. THYMUS *vulgaris*, or Common Garden-Thyme. *(Erect branches, ovate revolute leaves, and whirled ſpikes of flowers.)*

Varieties.

Broad-leaved Garden-Thyme.
Narrow-leaved Garden-Thyme.
Striped-leaved Thyme.

2. THYMUS *Serpyllum*, *(Serpyllum,)* Mother of Thyme, or Wild Thyme. *(Trailing ſtalks, plane obtuſe leaves, ciliated at the baſe, and flowers collected in heads.)*

Varieties.

Varieties.

Major Mother of Thyme.

Minor creeping Mother of Thyme; with woolly heads.

Silver-ſtriped Thyme.

Lemon Thyme; finely ſcented like Lemons.

Hairy-leaved Mother of Thyme.

Narrow-leaved Mother of Thyme.

3. THYMUS *cephalotus*, or Headed Portugal Hoary Thyme. *(Spear ſhaped leaves, ovate bracteæ, and flowers growing in large imbricated heads.)*

4. THYMUS *Maſtichina*, *(Maſtichina,)* or Maſtick Thyme. *(Whorled woolly ſpikes of flowers, and woolly calyxes, with denticles briſtly-hairy.)*

5. THYMUS *Zygis*, *(Zygis,)* or Upright Narrow-leaved Spaniſh Thyme. *(Erect undershrubby ſtalks, narrow leaves, the baſe ciliated, and whorled ſpikes of flowers.)*

6. THYMUS *villoſus*, Villous-Hairy Portugal Thyme. *(Briſtly-hairy leaves, large imbricated heads of flowers, and dentated bracteæ.)*

All theſe ſhrubby plants grow buſhy, branching out cloſe to the ground: the branches root therein abundantly, and propagate very faſt.

The Common Thyme is employed in kitchen-gardens, as an aromatic, in the pot-herb collection, and for medecine; is cultivated ſometimes as an edging to borders, and ſometimes planted in beds, in rows a foot aſunder, by the ſame diſtance in the row.

All the ſpecies may alſo be employed to diverſify the fronts of ſmall ſhrubbery-clumps, flower-borders, &c. and permitted to grow in buſhy heads: they will have a pretty effect. Allow them principally a dry ſoil, and they will be of longer continuance. The variegated kinds, and Lemon Thyme particularly, form a very agreeable variety; the latter of which is very much eſteemed for its odoriferous fragrance; and this, and the Silver-leaved Thyme, are alſo ſometimes trained in edgings, and often planted in pots, to move occaſionally to adorn any particular compartments.

They are all eaſily propagated by ſeeds, ſlips, and parting the roots.

When a large ſupply of Common Thyme is required, it may be raiſed abundantly from ſeed; which ſow in March

or April, in a bed or border of light earth, evenly over the ſurface, and rake it in lightly; or, where required for edgings, you may ſow the ſeed at once, in a ſhallow drill, where the edging is intended. The plants will ſoon come up; and in June, you may thin out thoſe in the beds, more or leſs, in moiſt weather, planting thoſe drawn out, in beds or borders, in rows ſix or eight inches diſtance, finally to remain; giving proper waterings.

The other ſorts may alſo be propagated by ſeed ſown in beds of light earth, in the ſpring, as directed above for the Common Thyme.

By ſlipping the young ſhoots, or rooted branches, in the ſpring, you may alſo propagate all the ſorts; planting them in a ſhady border, where they will readily grow.

Likewiſe in ſpring, old plants may either be ſlipped as they ſtand, or taken up and divided into many ſeparate rooted ſlips, and planted in beds. Give a good watering, and they will ſoon grow in buſhy heads.

All the variegated kinds, and Lemon Thyme, are principally continued by ſlips, and parting the roots.

When any of the Thymes are employed for edgings to beds or borders, they ſhould be kept regular, by clipping them every ſummer, on the ſides and top in moiſt weather.

TILIA, LIME-TREE. Of the claſs and order *Polyandria monogynia.*

The Limes are handſome, deciduous, ornamental, and foreſt-trees, with ſtraight ſmooth ſtems, and regular-branching heads, affecting a conical growth; adorned with large, heart-ſhaped, pointed, light-green leaves, and large bunches of greeniſh flowers; with concave, five-parted, coloured cups, and five oblong petals, ſome without nectariums, and ſome furniſhed therewith; numerous ſtamina, a roundiſh germen, with one ſtyle; ſucceeded by globular, five-valved, quinquelocular capſules, with five roundiſh ſeeds.

The ſpecies are,

1. TILIA *europæa*, or Common European Lime-Tree: *(Flowers deſtitute of a nectarium, and heart-ſhaped light-green leaves.)*

Varieties.

Common Green-twigged Lime-Tree.

Red-twigged Lime-tree; with hairy leaves.

Large-

Large-leaved Lime-Tree.
Small-leaved Lime-Tree.
Elm-leaved Lime-Tree.
Variegated-leaved Lime-Tree.

2. TILIA *americana*, or American Nectariferous Lime-Tree. *(Flowers furniſhed with nectariums, and large heart-ſhaped deep-green leaves.)*

Variety.

(Caroliniana,) Carolinian Long-leaved Lime-Tree.

Theſe trees are ſwift growers, arriving to a conſiderable altitude, and proper both for ornament, and for the foreſt-tree collection, to grow to timber, which, being ſoft and white, is proper for various light purpoſes, but not for ſtrength.

But the trees have great merit in ornamental gardening, to arrange in groves, avenues, and on the boundaries of grand lawns; and dropped ſingly, and in groups, in parks, or any capacious premiſes. They were formerly in great reputation to arrange in rows, hedge-ways, ſometimes branchy to the bottom, and clipped annually; and ſometimes trained with ſix or eight-feet ſtems, and the heads fanned in the manner of a hedge; and ſometimes clipped into pyramids, &c. but as they caſt their leaves early in autumn, they ſoon appear naked when ſheared: they therefore make the fineſt appearance in their natural growth.

They are expeditiouſly propagated by layers and cuttings of the young ſhoots. Have, for layers, one or more young trees cut down near the ground, for ſtools, to produce plenty of bottom ſhoots annually, in ſummer, conveniently ſituated for laying in the earth every autumn, which, and cuttings of the young ſhoots, planted at the ſame time, will root abundantly well for planting out the next autumn or ſpring twelvemonth, in wide nurſery-rows, to train for final tranſplanting. Train each with the leading ſhoot intire, and with a ſingle clean ſtem, ſix feet high, or more; then permit them to branch out upwards.

They may alſo be raiſed by ſeed ſown in autumn, half an inch deep; and the ſeedling plants, after one ſummer's growth, may be planted out in the nurſery, and managed as above.

ULEX,

U.

ULEX, Furze, *Gorſe*, or *Whins*. Of the claſs and order *Diadelphia decandria*.

They are a ſort of evergreen ſhrubs, ſtrongly armed with thorns; employed ſometimes for variety, and for forming defenſive field-hedges; are thinly garniſhed with ſmall oblong leaves, and numerous papilionaceous yellow flowers along the ſides of the branches; having two-leaved cups, a five-leaved corolla, forming a heart-ſhaped ſtandard, two obtuſe wings, and a two-leaved nut, ten diadelphous ſtamina, oblong germen, with a riſing ſtyle, ſucceeded by oblong turgid ſeed-pods.

There is but one hardy ſpecies, viz.

Ulex *europæus*, European Common Furze, or Whins. (*Acute-pointed hairy leaves, and ſcattered ſpines.*)

Varieties.

Common Yellow-flowered Furze.

White-flowered Furze.

Dwarf Furze.

This prickly ſhrub, growing wild in moſt places, is not much cultivated, except a few plants, in full ſhrubbery collections, for variety: it will make a good appearance when in flower.

It is alſo ſometimes employed for outward field-hedges, along the top or ſide of dry banks; the ſeeds being ſown at once, where the hedges are deſigned, in a ſingle or double drill, an inch or two deep. It may either be trained in a regular hedge, by clipping the ſides, and alſo the top, when arrived to the proper height, or permitted to grow up rough and buſhy.

They propagate plenteouſly by ſeed ſown in autumn, or ſpring, either in drills, or broad-caſt, and raked into the ground; the ſeedlings to be planted out at a year old, in the nurſery, or for hedges, &c.

ULMUS, Elm-Tree. Of the claſs and order *Pentandria digynia*.

The Elms are lofty-growing deciduous foreſt-trees, and, for ornament, of exceeding great importance, as moſt capital

capital timber-trees; growing fifty or ſixty, to near an hundred feet high; ſome branching uprightly, others with large ſpreading heads; adorned with oval-oblong, ſawed, rough leaves, and cluſters of apetalous flowers, on the young ſhoots; having monophyllous, rough, five-parted cups, no petals, five ſtamina, and an orbicular germen, with two ſtyles, ſucceeded by roundiſh capſules, containing one roundiſh ſeed.

The ſpecies are,

1. ULMUS *campeſtris*, Champaign, or Common Elm-Tree. *(Ovate-oblong, doubly-ſerrated leaves, unequal at the baſe.)*

Varieties.

Broad-leaved Common Elm.

Small-leaved Common Elm.

Narrow-leaved Corniſh Elm.

Smooth-barked, or Wych Elm; with oblong leaves.

Broad rough-leaved Wych Elm; very broad leaves.

Smooth-leaved Wych Elm.

Dutch Elm; very ſpreading branches, with a rough fungous bark, and large rough leaves.

Silver-ſtriped-leaved Elm.

Gold-ſtriped-leaved Elm.

2. ULMUS *americana*, American Elm-Tree. *(Oblong-ovate, equally-ſerrated leaves, unequal at the baſe.)*

3. ULMUS *pumila*, or Dwarf Siberian Elm-Tree. *(Small-oval, equally-ſerrated leaves, equal at the baſe.)*

Elms are very valuable trees, for all hardy plantations, both as ſuperior timber trees, and for ornament, to arrange in avenues, groves, woods, thickets, clumps, ſhady walks, and in aſſemblage in any running or continued plantations, around the boundaries of pleaſure-grounds, lawns, parks, &c. or out-grounds; and to plant as defenſive outward plantations, againſt the fury of tempeſtuous winds, and cutting blaſts; in all of which, they are to be trained as high ſtandards, permitted to aſpire in height, and branch out around, according to their natural growth.

They were alſo formerly in univerſal great repute, for forming tall ornamental hedges, either branchy quite from the bottom, or ſometimes trained up to ſix, eight, or ten-feet ſtems below, and trained hedge-ways above, and ſometimes cut into arches, pilaſters, porticoes, galleries, &c. in

in which they often exhibited a grand appearance, being peculiarly calculated for thoſe purpoſes.

But, conſidered as timber-trees, they claim univerſal eſteem; and, as ſuch, may be diſpoſed in woods, and in ranges, in hedge-rows around the out-boundaries and diviſions of fields; or to form ulmariums, in continued rows, in out-grounds.

Elms are free growers, and eaſy of tranſplantation, even when fifteen or twenty feet high, or more.

They all proſper in any common ſoil, not copiouſly wet, but thrive remarkably in a good loamy earth.

The propagation of Elms may be effected with great expedition and abundance, by layers and ſuckers, and occaſionally by grafting.

For layers, have in the nurſery ſome young trees, cut down to the ground, for ſtools, to produce a large ſupply of bottom ſhoots for readily laying in the earth; which being performed in autumn, they will be well rooted by that time twelvemonth, for planting off in nurſery-rows, to be trained up with ſingle ſtraight ſtems, with the leading ſhoot entire.

Suckers from the root may be dug up with fibres in autumn, winter, or ſpring, and planted in nurſery-rows for training; or thoſe not well rooted may be bedded in thick; and in a year, thoſe that ſtrike root, and grow, may be planted out in the nurſery.

But the deſirable ſorts of Elms are alſo often propagated by grafting them upon any kind of Elm-ſtocks, performing it by whip-grafting, upon ſmall ſtocks, cloſe to the ground.

V.

VACCINIUM, WHORTLE-BERRY, or CRAN-BERRY. Of the claſs and order *Octandria monogynia.*

They are under-ſhrubby, deciduous, and evergreen plants, of very humble growth, and ſome trailing on the ground; garniſhed with very ſmall ovate and oblong leaves, and ſmall bell-ſhaped flowers, with ſmall cups, and one hollow

hollow petal, four-parted above; eight ſtamina, and a roundiſh germen, with a ſingle ſtyle, ſucceeded by globular, umbilicated, quadrilocular, many-ſeeded berries, which are eatable, and uſed for tarts, &c. in winter.

The chief ſpecies are,

1. VACCINIUM *Myrtillus*, (*Myrtillus*,) or Black Whortle-Berry, or Bil-Berry. (*Angular ſtalks, ovate ſerrated deciduous leaves, and peduncles one-flowered.*) Grows wild on waſtes and heaths, in England, &c.

2. VACCINIUM *Vitis idæa*, (*Vitis idæa*,) (Vine of Idea) or Red Whortle-Berry. (*Ob-ovate revolute entire leaves, dotted underneath, and terminal nodding cluſters of flowers.*)

3. VACCINIUM *album*, or White Pennſylvanian Whortle-Berry. (*Ovate entire leaves, downy underneath, and ſimple peduncles ſupporting two or three flowers.*)

4. VACCINIUM *uliginoſum*, Marſh Whortle-Berry, or Great Bil-Berry-Buſh. (*Ob-ovate, entire, obtuſe, ſmooth leaves, ciliated at the baſe, and peduncles ſuſtaining one flower.*)

5. VACCINIUM *Oxycoccos*, (*Oxycoccos*,) Cran-Berry, or Moor-Berry. (*Very ſlender creeping rooting ſtalks, and ovate revolute entire leaves.*) Native of boggy ſituations in England, &c.

6. VACCINIUM *mucronatum*, or Pointed-leaved Whortle-Berry. (*Ovate, dagger-pointed, ſmooth, entire leaves, and ſimple footſtalks ſuſtaining one flower.*)

7. VACCINIUM *frondoſum*, or Frondoſe Whortle-Berry. (*Oblong entire leaves, and ſlender frondoſe-leafy ſpikes.*)

8. VACCINIUM *corymboſum*, or Corymbous-flowering American Vaccinium. (*Oblong, pointed entire leaves, and an oval corymbus.*)

9. VACCINIUM *liguſtrinum*, or Privet-leaved Pennſylvanian Whortle-Berry. (*Shrubby ſtem, leaves oblong, and fine-notched; naked racemes of flowers.*)

10. VACCINIUM *ſtamineum*, or Stamineous American Whortle-Berry. (*Leaves oblong entire, ſolitary peduncles one-flowered, and antheræ longer than the corolla.*)

11. VACCINIUM *hiſpidulum*, or Hiſpid-ſtalked American Whortle-Berry. (*Stem thread-form, creeping, hiſpid; leaves ovate revolute entire.*)

Theſe are all diminutive plants, of from ſix inches, to one or two feet growth; natives of wild moors, heaths, hills, and

and boggy and marſhy places in England, and other northern parts of Europe, and North-America; producing abundance of ripe berries in autumn, of an agreeable acid reliſh, chiefly uſed for tarts in the winter ſeaſon.

If required in gardens for variety, you may diſpoſe them in ſhady ſituations, and other places in the ſhrubbery, &c. near the front.

They propagate by their creeping roots, and rooting branches: or you may divide them into ſeparate plants; likewiſe may ſow the berries in autumn, or as ſoon as obtained.

VIBURNUM, WAY-FARING-TREE. Of the claſs and order *Pentandria trigynia*.

This genus compriſes a fine collection of eminent deciduous, and evergreen ornamental tree and ſhrub kinds; adorned with largiſh heart-ſhaped, roundiſh and lobated, and ovate leaves, and numerous ſmall bell-ſhaped white and reddiſh flowers, collected in umbellate, corymbous, and globular bunches at the ends of the ſhoots; having ſmall five-parted cups, a ſmall monopetalous bell-ſhaped corolla, cut in five ſegments; five ſtamina, and a roundiſh germen; no ſtyle, but three ſtigmas, ſucceeded by roundiſh red berries, one-ſeeded.

It comprehends, beſides the Common Viburnum kinds, the *Opulus*, or Gelder Roſe, and the Lauruſtinus; conſiſting of ſeveral deciduous ſpecies, and one evergreen, compriſing ſome eminent varieties.

The ſpecies are,

Deciduous kinds.

1. VIBURNUM *Lantana, (Lantana,)* or Common Viburnum; Way-Faring-Plant, or Pliant Mealy-Tree. *(Large heart-ſhaped veined leaves, woolly underneath.)* Grows wild in England, &c.

Varieties.

Broad-leaved Lantana.
Narrow-leaved Lantana.
Variegated-leaved Lantana.

2. VIBURNUM *acerifolium*, or Maple-leaved Virginia Viburnum. *(Lobated leaves, with ſmooth footſtalks.)*

3. VIBURNUM *prunifolium*, or Plum-leaved Virginia Viburnum. *(Roundiſh-oval, crenated-ſerrated ſmooth leaves.)*

4. VIBURNUM

4. VIBURNUM *nudum*, or Naked-Umbelled Virginia Viburnum, called American Tinus. *(Spear-ſhaped-ovate entire leaves, thick and ſhining.)*

5. VIBURNUM *dentatum*, or Dentated-leaved Virginia Viburnum. *(Ovate, dentated or toothed-ſerrated, plaited leaves.)*

6. VIBURNUM *Lentago*, *(Lentago,)* or Marginal-Foot-ſtalked Canada Viburnum. *(Ovate, ſharp-pointed, ſerrated, thick ſmooth leaves, on long marginated foot-ſtalks.)*

7. VIBURNUM *Caſſinoides*, *(Caſſinoides,)* or Caſſine-like, American Viburnum, called Caſſio-berry-Buſh. *(Ovate crenated ſmooth leaves, footſtalks keel'd glandleſs.)*

8. VIBURNUM *Opulus*, *(Opulus,)* Marſh Elder, or Gelder Roſe. *(Lobated leaves, of three or four ſegments, with glandular foot-ſtalks, and large flat and globular umbels of white flowers.)*

Varieties.

Common Marſh Elder, with large flat umbels.

(Opulus roſeum,) Roſe March Elder, called Gelder Roſe; having large globular umbels.

Double-flowered Gelder Roſe.

Variegated-leaved Gelder Roſe.

Evergreen kinds.

9. VIBURNUM *Tinus*, *(Tinus,)* commonly called Lauruſtinus. *(Ovate entire leaves, with the ramifications of the veins hairy-glandular underneath, and many cymoſe umbels of reddiſh flowers, in autumn, winter, and ſpring.)*

Varieties.

Narrow-leaved Lauruſtinus.

Broad-leaved Lauruſtinus.

Shining-leaved Lauruſtinus.

Hairy-leaved Lauruſtinus.

Silver-ſtriped-leaved Lauruſtinus.

Gold-ſtriped-leaved Lauruſtinus.

All theſe ſpecies of *Viburnum* are choice ornamental furniture, for the embelliſhment of the pleaſure-ground and ſhrubbery, and all pleaſurable tree and ſhrub plantations; in which, being diſpoſed in collection, they will exhibit a diſtinguiſhable variety, both in foliage, and their numerous umbels of flowers.

They are all of the moderate tree and ſhrub growth: The *Viburnum Lantana* riſes fifteen or twenty feet high; the others, from ſix or eight, to ten or twelve feet, or more, generally forming buſhy heads; and the Lauruſtinus kinds grow very buſhy from the bottom; all of which flower conſpicuouſly, the deciduous kinds principally in June and July: thoſe of the *Opulus*, or Gelder-Roſe, growing in large globular balls, of a ſnowy whiteneſs, have ſingular beauty; and the plant is hence ſometimes called Snow-Ball-Tree: the Lauruſtinus kinds flowering in autumn, winter, and ſpring, the flowers appear in great profuſion and beauty, in defiance of the moſt inclement weather; which renders theſe ſhrubs of ſingular value for ornament.

They may be diſpoſed in the ſhrubbery, where-ever required, in any common ſoil, trained generally with ſingle ſtems below, and permitted to branch out above into full heads: or they may be planted ſingly in borders, &c. eſpecially the Globular Gelder-Roſe, and the Lauruſtinus; and occaſionally in pots.

The Lauruſtinus is alſo ſometimes trained hedge-ways, in pleaſure-grounds, and to cover naked unſightly walls, or pales, &c.

The propagation of all the ſpecies is performed plenteouſly by layers of the young branches; ſome alſo abundantly by ſuckers from the root, ſuch as the Gelder-Roſe, and ſometimes the Lauruſtinus; alſo by cuttings of the young ſhoots, in the ſoft-wooded kinds; and all the ſorts likewiſe by ſeed, ſown in autumn or ſpring, which in the Lauruſtinuſes, may be ſown in pots plunged in a hot-bed, in the ſpring, to forward their germination.

VINCA, PERIWINCLE. Of the claſs and order *Pentandria monogynia*.

They are procumbent, and upright-iſh under-ſhrubby evergreens, for adorning the vacant ſpaces between trees and ſhrubs, in front of ſhrubberies, ſhady walks, &c. having, the firſt ſort, very ſlender trailing-rooting ſtalks, the other ſomewhat erect; garniſhed with moderate, ovate-ſpear-ſhaped, and ovaliſh, ſtiff, ſhining leaves, all the year, and large, ſalver-ſhaped, ſpreading, blue flowers, produced ſingly, having acutely-five-parted cups, a monopetalous corolla, tubulous below, and ſalver-ſhaped, and ſpreading above, in five obtuſe ſegments; five ſtamina, and one ſtyle,

ſtyle, with a double ſtigma, ſucceeded by two ſmall, cylindric, acute pods, filled with oblong ſeeds.

The hardy ſpecies are,

1. VINCA *minor*, Minor, or Smaller procumbent Periwincle. *(Procumbent ſlender ſtalks, ſpear-ſhaped-ovate leaves, and flowers ſingly, on footſtalks.)* Grows wild under hedges, &c. in England.

Varieties.

Common Blue-flowered.
White-flowered.
Purple-flowered.
Variegated-flowered.
Double-flowered.
Silver ſtriped-leaved.
Gold-ſtriped-leaved.

2. VINCA *major*, Major, or Greater Upright Blue Periwincle. *(Uprightiſh ſtalk, a foot or two high, with trailing-rooting branches, larger ovate leaves, and large flowers ſingly on footſtalks.)* Grows wild in England, &c.

Varieties.

Common blue-flowered.
White-flowered.

They being reſidents of woods, and hedge-ſides, and under buſhes, &c. have an admirably pretty effect, when diſpoſed in ſimilar ſituations in pleaſure-grounds, between ſhrubs and trees, or the borders of ſhady walks, or where required: they will run exceedingly, and overſpread the ſurface of the naked ground with a beautiful verdure all the year, and flower very ornamentally from April or May, till the end of ſummer.

The Major Periwincle may alſo be trained with an erect ſtem, and buſhy heads, by trimming the ſtraggling ſhoots; and diſpoſed as a ſtandard ſhrub.

You may propagate them by their trailing-rooting branches, which may be cut off with roots, and planted in the nurſery, or where they are to remain; likewiſe by layers of the branches, and cuttings of the young ſhoots, which will be well rooted in one ſummer.

VISCUM, MISSELTOE. Of the claſs and order *Dioecia tetrandria*.

This is a ſingular underſhrubby evergreen, of the paraſitic tribe, not growing in the earth, but upon other plants,

generally on the branches of ſoft-wooded trees, commonly ſuſpended with its root upward, and the head hanging down; garniſhed with narrow ſpear-ſhaped, obtuſe, ſtiff leaves, and on ſeparate plants, ſmall male and female yellowiſh flowers, having four oblong calycinal leaves like petals, four ſtamina, an oblong trigonous germen, and obtuſe ſtigma, ſucceeded by globular white viſcous berries, containing a hearted ſeed, ripe in winter.

The chief ſpecies is,

VISCUM *album*, White-berried, or Common Miſſeltoe. *(Spear-ſhaped obtuſe leaves, forked ſtalk, axillary ſpikes of yellow flowers.)*

This very remarkable plant is an inhabitant of our woods, plantations and orchards, growing upon the branches of Aſh, Hazle, White-Thorn, Crab, and Apple-Trees, &c. produced from ſeed accidentally diſſeminated by the Miſſeltoe Thruſh, &c. feeding on the viſcous berries, which adhering to their beaks, are carried to the adjacent trees, and lodging on the branches, are generally waſhed by the rains to the under ſide, where ſticking faſt by their ſoft glutinous pulp, the ſeeds contained therein germinate, and plant their fibres in the bark, running between that and the wood, and ſhoot out with a ſhort robuſt ſtem, and round buſhy head.

Thus thoſe who chuſe to have this ſingular plant for variety, may propagate it in their plantations, and orchards, &c. by procuring the ſeeds in winter, and rubbing them on the under ſide of the branches of any ſoft-wooded trees, ſuch as Aſh, Hazle, Crab, Apple, &c. as above ſuggeſted. They will adhere cloſely by their viſcous part, and grow in the manner above related.

VITEX, (AGNUS-CASTUS,) CHASTE-TREE. Of the claſs and order *Didynamia angioſpermia*.

It compriſes upright deciduous ſhrubs, of Italy, growing to eight or ten feet ſtature, decorated with large digitated, or fingered leaves, of from five to ſeven lobes, expanded like the fingers of an open hand; and the branches terminated by very long whorled ſpikes of bilabiated ringent ornamental flowers, having a cylindric quinquedented cup, a ringent, or grinning corolla, tubular below, and plain above, divided into two trifid lips; two ſhort and two long ſtamina, and

and a roundiſh germen, with a ſlender ſtyle, ſucceeded by a roundiſh quadrilocular berry, with four oval ſeeds.

There is only one hardy ſpecies, viz.

VITEX *Agnus-caſtus*, (*Agnus-caſtus*,) Common Agnus-caſtus, or Chaſte-Tree. (*Digitated leaves, with ſawed lobes, and verticillate ſpikes of flowers.*)

Varieties.

Narrow-leaved Agnus-caſtus.
Broad-leaved Agnus-caſtus.
Blue-flowered Agnus-caſtus.
White-flowered Agnus-caſtus.

This is an eminent ornamental ſhrub, for the deciduous collection in the ſhrubbery, &c. will ſucceed in any common ſoil and ſituation; and is eaſily propagated by layers, and cuttings of the young ſhoots, in ſpring, which will take good root in one ſummer.

VITIS, The VINE, or GRAPE-VINE. Of the claſs and order *Pentandria monogynia*.

The Vine is a deciduous climber, of ſingular eminence, of the fruit-tree kind, and for variety; with long flexuoſe branches and ſhoots, riſing by ſupport to a conſiderable altitude and extent; producing numerous, long, trailing, jointed ſhoots extending many feet in length in one ſummer, garniſhed at each joint with large, ſimple, lobated leaves, being moſtly cut in three or five lobes, attended by oppoſite cirrhi, or climbing tendrils, and cluſters of ſmall greeniſh flowers, at the eyes of the ſame years ſhoots, having ſmall quinquedented cups; five ſmall deciduous petals, five ſtamina, and an oval germen, without any ſtyle, but an obtuſe ſtigma; the germen ſucceeding to a roundiſh and oval, unilocular, five-ſeeded, delicious berry, produced in large oblong cluſters, called grapes; ripe in July, Auguſt, September, and October.

There is but one ſpecies proper to cultivate for its fruit, and two or three others for variety, viz.

1. VITIS *vinifera*, (Wine-bearing,) Common Vine, or Grape Vine. (*Large lobated, ſinuated, naked leaves.*)

Varieties of the fruit.

Early Black July Grape.
White Sweet-water Grape.
Black Sweet Water Grape.

White Muſcadine Grape.
Black Muſcadine Grape.
Black Cluſter Grape. (Hoary leaves, and ſhort cloſe bunches of fruit.)
Black Burgundy Grape.
White Frankindale Grape.
Black Hamburgh Grape. (Large bunches.)
Red Hamburgh Grape. (Large bunches.)
Corinth, or Currant Grape. (Small black berries.)
Royal Muſcadine White Grape. (Large bunches, dividing in two ſhoulders.)
White Frontignac Grape.
Griſley Frontignac Grape.
Red Frontignac Grape.
Black Frontignac Grape.
Alexandrian White Muſcat Grape.
Alexandrian Red Muſcat Grape.
Tokay Grape. (Large and fine.)
St. Peter's Grape. (Remarkably large bunches and berries.)
Claret Grape.
Raiſin Grape.
Varieties of the tree.
Smooth-leaved.
Hoary-leaved.
Parſley-leaved. (Leaves finely divided.)
Variegated-leaved Vine.

2. VITIS *vulpina*, or Fox-ſcented Virginian Grape. *(Heart-ſhaped dentated-ſerrated leaves, naked on both ſides.)*

3. VITIS *laciniosa*, Laciniated, or Cut, Parſley-leaved Canada Vine. *(Quinate, or five-folioled leaves, the folioles multifid, or finely-divided.)*

4. VITIS *arborea*, or Tree Pinnated-leaved Carolina Vine. *(Supra-decompound leaves, with many lateral pinnated folioles.)*

5. VITIS *Labruſca*, *(Labruſca,)* or Ivy-leaved Wild American Vine. *(Heart-ſhaped, moſtly three-lobed, dentated leaves, downy underneath.)*

Of the above five ſpecies, the firſt only produces eatable grapes, which in moſt of the others are too auſtere and ſour for

for uſe; ſo that the *Vitis vinifera*, and its varieties, are proper for general culture for their fruit: they ſhould be planted principally againſt ſouth walls, having their branches trained thereto; and occaſionally alſo in vineyards, in the open ground, in rows, and trained to ſtakes. All the other four ſpecies are introduced in ſhrubbery collections, for the ſake of variety.

Vines bear their fruit always upon the young ſhoots, of the year only, produced from thoſe of a year old; the ſhoots of laſt ſummer furniſhing at the ſame time a crop of grapes, and a ſupply of ſhoots for next year's mother-bearers, which producing ſhoots next ſpring from every eye, theſe ſhoots furniſh the fruit the ſame year: for Vines ſeldom produce immediate bearing-ſhoots from branches more than one year old; and, as the ſame individual ſhoots are never fruitful after the ſecond year, a ſupply of new bearers muſt be every year retained, and a proportionable part of the old wood cut out, to make room for the ſucceſſional ſupply.

But as to the Common Vine, it ranks among our choiceſt fruit-trees, for the excellence of its rich bunches of grapes, principally as deſſert or eating-fruit, in this country; and in foreign warm climates, where they ripen the grapes in vaſt abundance, in vineyards, in the open fields, it is of conſiderable national value, for making all ſorts of rich wines; being for this purpoſe planted in open grounds, on ſides of hills, &c. in dry warm ſoils, in ſunny expoſures, in rows eight or ten feet aſunder by five feet in the row, and trained to ſtakes. In the warm parts of France, Italy, and Portugal, &c. it produces vaſt quantities of Grapes, ripened in the higheſt perfection for making wine, for the ſupply of moſt other parts of Europe.

In this northern country, however, the Grapes do not always ripen, without every poſſible advantage of ſhelter, and full expoſure to the ſun; and therefore require to be planted againſt the beſt ſouth walls, at ten feet diſtance, if for a full plantation; or in vacant ſpaces between other wall-trees; and the branches to be trained either horizontally, or upright, as the ſpace of walling admits, ten or fifteen inches aſunder: and as they bear only on the young wood, a general ſupply of every year's ſhoots muſt be retained as ſucceſſional bearers, trained moſtly at full length the greateſt

greateſt part of the ſummer, and ſhortened, in winter-pruning, to from three or four, to five or ſix eyes in length, and nailed in at the above diſtances.

They are alſo ſometimes trained in ſunny expoſed eſpaliers, and the branches aranged horizontally, at the diſtance above mentioned; likewiſe in vineyards, in warm dry ſoils, full to the ſouth ſun, or ſouth-eaſt expoſure.

Vines are alſo ſometimes, for variety, trained in half-ſtandards, with a ſingle ſtem, two, three, or four feet high, ſupported with a ſtake, and the head ſuffered to branch out around; the long ſhoots being pruned down to a few eyes, to keep them from ſtraggling, and to form the head compact and regular.

Some of the capital Grapes do not ripen in any tolerable perfection in the open air in England, and are therefore often planted in vineries, hot-walls, or forcing-houſes, under glaſſes, in order to be forwarded by artificial heat, of fire, or of that and bark-bed heat together; and thereby not only ripened earlier in the ſeaſon, but alſo in a ſuperior degree of maturity, and richneſs of flavour.

Likewiſe, to have grapes as early in the ſummer as poſſible, and of an improved degree of richneſs of flavour, ſome of the choice early ſorts, and any other deſirable varieties, are alſo planted in hot-walls, vineries, &c. in which they may be obtained two or three months earlier than in the open ground, and in higher perfection.

Alſo, where there is the convenience of a Pine-Apple ſtove, &c. you may plant any choice kind of Grapes, in a border, cloſe along the outſide of the front thereof, a yard, or three feet and a half aſunder; training the firſt main ſhoot of each to a ſingle ſtem, ſeveral feet long, in order to its being introduced through a hole, at two or three feet height, or more, in the front wall, juſt above the flues, if any, or in the wood-work framing, and trained up within-ſide under the inclined or ſloping glaſſes; where being permitted to branch out, and trained in regular order, they will thrive with the ſame degree of heat, as is requiſite for Pines and other tender exotics: and in winter, towards Chriſtmas, and after, defend that part of the ſtem which is without-ſide from froſt, with a wrapping of ſmall hay-bands, mats, &c. and they will produce abundant crops of Grapes in high maturity, two or three months before their natural ſeaſon.

Method

Method of Propagation.

Vines are propagated by layers of the young ſhoots, and of the one, two, or three years branches; alſo by cuttings of the year-old ſhoots: and both layers and cuttings will root freely, and form plants in one ſummer's growth.

The layers may be made in autumn or ſpring. Chuſing the lower outſide one or two years branches, and making an oblong opening in the earth, three or four inches deep, lay the branch or ſhoot therein, a foot or more, lengthways, with the top part out of the ground; and peg it down with a long hooked, or forked ſtick, covering the body of the layer with earth, and ſhortening the long weak top, to two or three buds. They will be well rooted by the next autumn: then cut them from the parent plant; when they may be either planted in a nurſery for training a year or two, or you may plant them at once where they are always to ſtand; obſerving, if they are now furniſhed with young ſhoots of laſt ſummer, to let the ſaid ſhoots be pruned to three or four buds, which, in the ſummer following, will each produce a ſtrong ſhoot, that muſt be trained at full length during the ſummer's growth; and all lateral twigs riſing therefrom muſt be carefully rubbed off, leaving only the main ſhoots; and in winter-pruning, cut each to from three to five buds, and manage them afterwards as hereafter directed in their general culture.

Cuttings of the young ſhoots may be provided in winter, or early in the ſpring, before the ſap is in motion, for planting in March and April. Obſerve to procure a quantity of cuttings of the ſtrong young ſhoots, of laſt ſummer's production, that are firm and well ripened, taking principally the lower and middle part of the ſhoots, as being the beſt hardened; cutting them into lengths of twelve or fifteen inches long, or about three joints, and cutting each end near an eye: or the lower cutting may be taken off, with an inch of the two-year-old wood at its bottom; though, as this is not of material conſequence, you may either cut them with or without a knob of the old wood, as the ſhoots ſhall happen.

Being provided, in winter-pruning of old Vines, with a quantity of good cuttings, as above, you may either plant them directly in a dry warm ground, or lay them in a bundle together, in a dry border, with the ends in the earth,

earth, and cover them with litter in frosty weather, occasionally, till spring; then plant them out separately in February, March, or the beginning of April, both in rows in the nursery, to form rooted plants, for future transplanting; and others you may plant at once where they are to remain, against walls, espaliers, or in the vineyard way, opening the ground for their reception with a spade; or make holes with a dibble; introducing each cutting in the earth, quite down to the uppermost bud.

They will root freely the same season, and shoot at top. Observe to leave only the main shoot, which train to a stake, or to the wall, &c. if growing against one; and as it will emit shoots from all the lateral eyes, they should be rubbed off in their early growth, and none left but the principal, or mother-shoot, trained up at full length all summer; and in autumn, when the leaf falls, prune it down to two, three, or four buds, according to its strength.

The next spring and summer, they will produce a strong shoot from every eye; and, if two or more rise from the same bud, displace the weakest, leaving only one shoot advancing from each eye, and train them up regularly to the wall, or espalier, at their proper length; being careful to divest them constantly of all side twigs from the lateral eyes, during the summer; and if any produce fruit, such shoots may be stopped, or pruned at top, in the end of July, to direct a greater supply of nourishment to the fruit. Continue the shoots all close to the wall, during the season of their growth.

Then, in winter-pruning, let each shoot be pruned to three, four, or five buds in length, and nailed to the wall, &c. in regular order; and afterwards managed agreeably to the general culture of Vines, as below.

Planting, and general Culture in the Garden.

For a plantation of Garden Vines, chuse the best south and south-east walls, but mostly full south, for the main supply; and if any are designed for espaliers, by way of variety, fix on the most sunny exposure; but plant principally against walls, for the general crops.

As to soil, Vines succeed in any good garden-earth; though, where there is choice of situation, it is advise-

able

able to prefer a light dry warm ſoil, which is more agreeable to their nature, and promotes a more early growth, and ripening of the Grapes, as well as contributes greatly to the richneſs of their flavour. Strong and humid ſoils have the contrary effect: ſo that clayey, or any ſtubborn moiſt ſoil is improper for Vines, without amendment with dry light compoſts.

In preparing thoſe parts of the borders where Vines are intended, if it is naturally light, dry, and good ſoil, with a perfectly dry bottom, no more is required than proper trenching, or digging, one or two ſpades deep.

But if the ſoil is of a ſtrong moiſt temperature, it is adviſeable to trench in about a foot deep of light materials at bottom, ſuch as lime-rubbiſh, chips of free-ſtone, ſcrapings of great turnpike roads, and the like, to drain off the moiſture, and keep the bottom dry and warm; and likewiſe either to blend the general upper ſoil with light compoſts, or remove the ſtrong moiſt part, and fill up the ſpace with entire freſh light earth, raiſing the border ſix inches, or more, above the common level.

In making a plantation of Vines, with rooted plants from a nurſery, you may chuſe them of from two or three, to four or five years old, and arrived to a bearing ſtate. The ſeaſon for planting is either ſoon after the fall of the leaf, or any time in open weather from November till March. Have them carefully dug up with their full ſpread of ſhoots, for this is of the utmoſt importance.

If deſigned as a continued plantation, againſt walls, allow from ſix to eight or ten feet diſtance, according to the height of the wall; and if in eſpaliers, place them ten or fifteen feet aſunder.

Then let them be pruned and nailed to the wall; obſerving, if their heads conſiſt of ſeveral young ſhoots, of laſt ſummer, to chuſe the ſtrongeſt and beſt-placed ones for training in; cutting out the weak and trifling twigs, and ſhortening each of the remaining ſelect ſhoots, to from three or four, to five eyes, or buds: then nail them up regularly to the wall, at from ten or twelve, to fifteen or eighteen inches diſtance, for bearers; that by allowing ſufficient ſcope between the branches, you may leave good room to train in next ſummer's bearing-ſhoots, with proper regularity, together

ther with ſuch as may be required as ſucceſſional bearing-wood. Obſerve every year to increaſe the number of branches, advancing regularly from near the bottom, till they cover the allotted ſpace of walling, &c.

Then, in regard to the general culture of full-grown Vines, they muſt have a regular dreſſing twice every year; that is, a ſummer and a winter-pruning, to retrench irregular and ſuperfluous growths of each year; and to train in annually a ſucceſſional ſupply of every year's young ſhoots, in every part, for the general bearers, as Vines bear only on the young yearling ſhoots, which ſhould be trained in the moſt abundantly, in ſummer, as the immediate bearers, and moſtly at full length during that ſeaſon. In winter, thin out the worſt and overabundant, and leave a general ſupply of the ſtrongeſt for the next year's mother-bearers, and ſhorten each to a few eyes; to make room for which, a proportionable ſhare of the former bearers, and old wood, ſhould be annually cut out in winter; and each bud of the reſerved young ſhoots will produce a fruit-ſhoot next ſummer, furniſhing the immediate crop of Grapes, each probably from two or three, to ſix, eight, or ten, or more bunches.

But thoſe who require a larger ſupply of fruit, may leave the mother-bearers in winter-pruning longer than above preſcribed; perhaps with ten, twelve, or more buds or joints in length, if the ſcope of walling admits of laying them in; though it is generally more eligible to prune them moderately ſhort, from three or four, to five or ſix joints; which will afford nearly ſo many fruit-ſhoots, and which will be found ſufficiently abundant, as a moderate crop of large well-ripened bunches are ſuperior to double the quantity of ſmaller, and later-ripened; for the fewer the bunches, the earlier they ripen, and are of a richer flavour.

The ſummer-pruning of Vines ſhould be entered upon in April, or early in May, and continued occaſionally, during the ſummer, to regulate the ſhoots of the year only; and the earlier this important buſineſs is entered upon, the greater advantage will derive to the preſent crop of Grapes.

Vines ſhoot early, and throw out vaſt quantities of ſhoots every ſummer, many of them fruit-ſhoots, riſing from the laſt

laſt ſummer's wood only, and furniſh the ſame year's Grapes, and muſt be every where retained. Numerous others riſe from the old branches: but theſe are never fruitful the ſame year; and all the weak ones of them muſt be diſplaced, ſome ſtrong well-placed ones only being retained in vacancies. This regulation ſhould be proceeded upon early before the ſhoots advance much in length, and if while only in the bud, the better.

Begin the firſt regulation in the latter end of April, or beginning of May, while the ſhoots are quite young; and rub off with the thumb all the ſmall weakly buds, advancing from the old branches every where, except in any vacant parts below, in which you may retain ſome ſtrong ones to fill the ſpace; carefully preſerving all the fruit ſhoot-buds iſſuing from the laſt year's wood, having the embryo bunches of Grapes in the boſom of the young leaves: and, as they advance to due length, you muſt train them in cloſe to the wall; being careful always to retain any good ſhoots advancing in the lower parts, either immediate bearing ſhoots, or others, in vacant parts; for it is of great importance to have young wood always advancing in regular progreſſion from the bottom.

In a fortnight or three weeks after, run over the Vines again, and diſplace all weak ſtraggling ſhoots, omitted in the firſt regulation, or that have puſhed out ſince, eſpecially from the old wood, except in vacancies, as before ſuggeſted; having the ſame regard as before in preſerving all the fruit-ſhoots, which will now diſcover diſtinctly the young bunches of fruit; and when they have advanced a foot long, nail them up regularly to the wall, between the mother-branches, not croſſing, but laid parallel beſide one another, at equal diſtances. At the ſame time, alſo, faſten up any ſtrong well-placed ſhoots, advancing below in vacancies, whether immediate fruit-bearers or not, to chuſe out of in winter-pruning; being careful to clear all the main ſhoots in general from lateral twigs, as they are from time to time produced, leaving none but the mother-ſhoots. Train the whole very cloſe to the wall during the ſummer, moſtly at full length, at leaſt till the end of June, or till July, when you may ſtop the fruit-ſhoots, about two or three eyes above the uppermoſt bunches of Grapes, in order to direct the ſap more effectually to the whole

nouriſhment of the fruit, and thereby improve the ſize of the berries, and magnitude of the bunches.

Thus continue looking over the Vines every fortnight during the ſummer's growth, to redreſs caſual irregularities; ſuch as the replacing any ſhoots that have ſtarted from the wall; and to nail along the ſhoots in general, as they extend in length: alſo to diſplace all after-ſhoots, and ſtragglers, before omitted, together with all lateral twigs from the ſides of the bearers, continuing the whole regularly trained, always cloſe to the wall, as before adviſed, all ſummer long, to admit the full benefit of the ſun's influence equally in every part, to promote the free growth, more early ripening, and rich flavour of the Grapes.

All the operations of ſummer-pruning ſhould be attended to in time, before the ſhoots run any conſiderable length, and particularly before they entangle with one another; which proves of ſingular utility for the good of the fruit.

Likewiſe, if proceeded to in time, while the ſhoots are quite young and tender, the buſineſs of diſplacing the uſeleſs and unneceſſary growths of the year may be performed with the finger and thumb, with great truth and expedition.

The winter-pruning you may perform as ſoon as the leaf falls, or, indeed, any time from that period, till February or March; but the ſooner after the fall of the leaf, the better; obſerving to make choice of a general ſupply of the beſt-placed ſtrong ſhoots of laſt ſummer, to retain for next year's mother-bearers, at the diſtances formerly hinted: and let all the others be pruned out cloſe, together with part of the old wood, pruned down more or leſs, to the firſt beſt ſhoot they ſupport, or long naked old branches unfurniſhed with young wood, retrenched entirely to their origin, as ſhall ſeem convenient; for room muſt always be made to train the requiſite annual ſupply of ſucceſſional young bearing-ſhoots; being careful alſo, as ſuggeſted in the ſummer-pruning to retain ſome good ſhoots towards the bottom and lower parts, advancing one under another at eligible diſtances. Obſerve at the ſame time, that the general ſupply of ſhoots now retained, muſt be each pruned to from three or four, to five or ſix buds, or joints, in length, excluſive of the lowermoſt eye, which rarely furniſhes any good fruit-ſhoots; though, as we formerly noticed, ſome leave

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the ſhoots double the length that is here directed, or more, with a view to obtain a larger quantity of bunches of Grapes; but the bunches will be ſmaller in proportion, and of inferior quality; a ſhoot ſhortened to five buds producing the ſame number of fruit-ſhoots, each furniſhing probably, four, five, ſix or eight bunches, which are a reaſonable quantity, and which will attain greater perfection than a larger number, and ſooner ripen.

As ſoon as the Vines are thus winter-pruned, let the whole be regularly trained, nailing them to the wall either upright, or horizontally, as the ſcope of walling admits, at the diſtances before mentioned, extending them all as ſtraight as poſſible, and equally diſtant from one another.

Culture in Vineyards.

As to Vineyard-Vines, you ſhould chuſe ſome dry, warm, upland, or elevated ſituation, of a ſoutherly, or ſouth-eaſt expoſure; or the ſide of a moderate riſing ground, of a gradual acclivity, lying well to the ſun, and which muſt be previouſly well dug, or trenched; or, if a conſiderable plantation, may be ploughed and harrowed, and this repeated two or three times from autumn till ſpring; or if for one year, the better, to pulverize and cheriſh the ſoil more effectually.

Then being furniſhed with a proper ſupply of Vine-plants, either young rooted ones of a year or two old, previouſly raiſed in a nurſery, or cuttings of young ſhoots, plant them in rows, ſouth and north, ten feet diſtance, by five or ſix feet in each row.

If they are rooted young plants, previouſly raiſed in a nurſery, as above, and furniſhed with ſhoots, prune each ſhoot to three buds; and if only cuttings, they likewiſe, when they have made their firſt ſummer's ſhoot, ſhould, at the fall of the leaf, be pruned to two or three eyes.

In ſpring, when they begin to ſhoot, place down ſome ſtakes to each plant; to which train the ſummer's ſhoots, keeping them diveſted of all lateral twigs during the ſummer.

The next autumn, prune the ſhoots of the preceding ſummer to three or four buds, extend them along to the right and left, to the ſtakes, and faſten them thereto, in an aſcend-

ing direction, with an equal number to each ſide; and then dig the ground between the rows.

Continue increaſing the number of branches annually, to eight or ten, &c. on each Vine, extended equally to both ſides, fixing down additional and taller ſtakes accordingly; to which let them be regularly trained, by tying the ſummer ſhoots thereto with baſs; and in winter-pruning, let the general branches and ſhoots be tied along ſecurely, at regular diſtances, with oſier-twigs. And when the Vines are two or three years old, they will begin bearing, and arrive to a good bearing ſtate in five or ſix, and continue fruitful many years.

In their general culture, they muſt have a ſummer and winter-pruning; and the ground be dug annually in winter or ſpring, between the rows, and hoed in ſummer to keep it perfectly clean from weeds.

Begin the ſummer-pruning in May, by diſplacing all weak twigs of the old wood; and when the fruit-ſhoots are long enough, faſten them along to the ſtakes, diveſting them of all ſide-ſhoots, and extend them in length till advanced two or three joints beyond the fruit; then ſtop them by breaking them off at a bud; continuing ſome ſtrong ſhoots advancing from below occaſionally; keeping the whole trained to the ſtakes during their growth, and conſtantly cleared from all ſtraggling unneceſſary ſhoots, to give the fruit every poſſible advantage.

The ſummer-pruning, if attended to regularly while the ſhoots are quite young, may be expeditiouſly performed with the thumb and finger.

Perform the winter-pruning at the fall of the leaf, ſelecting the beſt-placed laſt ſummer's ſhoots, cutting out the reſt with part of the old bearers in proportion; and let the reſerved ſhoots for the mother-bearers be each pruned to four or five eyes, and tied handſomely to the ſtakes at regular diſtances.

Y.

YUCCA, *(Yucca,)* ADAM'S-NEEDLE. Of the claſs and order *Hexandria monogynia*.

It conſiſts of upright ſucculent evergreens, reſembling the aloaceous tribe, diſplaying a curious ſingularity of growth; riſing

riſing with an erect, robuſt, tough, fleſhy, durable ſtem, from two or three, to four or five feet high, rarely branching, but garniſhed with long, ſtiff, fleſhy, aloe-like leaves, terminating at top in a large tuft, each ending in a ſharp ſpine; and from the centre of the cluſter of leaves, an upright flower-ſtalk, a yard or more high, branching widely around, and adorned with many liliaceous bell-ſhaped white and purple flowers, having no cups, ſix large oblong petals united below, ſix ſtamina, a three-cornered germen, with a ſingle ſtyle, ſucceeded by an oblong trigonous trilocular capſule, containing a double ſeries of compreſſed ſeeds.

The hardy ſpecies are,

1. YUCCA *Glorioſa, (Glorioſa,)* or Common Adam's-Needle, (of Canada and Peru.) *(Long broad ſtiff leaves, with the edges entire, and terminating in a long black ſpine.)*

2. YUCCA *filamentoſa*, or Thready-leaved Virginia Adam's-Needle. *(Long narrow ſerrated leaves, emitting long ſuſpended threads from their edges.)*

Theſe plants being of a curious growth, and ſingular appearance, have great merit for ornament and variety, in all collections in the ſhrubbery and pleaſure-ground. Diſpoſe them in a warm dry ſituation; and ſome alſo in pots, to move occaſionally to adorn any compartments where required.

They are propagated by off-ſet heads, from the bottom and ſides of the ſtem, in ſpring and ſummer. When the off-ſets are detached from the parent for this purpoſe, they being ſucculent, lay them in a dry place about a week, till the bottom part is perfectly dried over; then plant them in ſmall pots, to have ſhelter one or two winters, or till they have ſtrength; then turn them out into the full ground.

They may alſo be raiſed from ſeed, in the ſpring, in pots of light earth, plunged in a hot-bed.

Z.

ZANTHOXYLUM, TOOTH-ACH TREE. Of the claſs and order *Dioecia pentandria.*

It conſiſts of two upright deciduous American and Chi-

neſe trees, of ten or fifteen feet growth; having a rough bark armed with ſpines, and garniſhed with pinnated and trifoliate leaves, compoſed of ſpear-ſhaped and ovate lobes, folioles; and the branches terminated by looſe panicles male and female white flowers, on ſeparate plants, compoſed of five-parted cups, appearing like five oval petals five ſtamina, and five ſtyles, ſucceeded by a roundiſh capſule containing roundiſh hard ſeeds.

There are two ſpecies in our gardens, viz.

1. ZANTHOXYLUM *Clava herculis*, (*Clava Herculis, Hercules's Club*,) Common American Zanthoxylum, or Tooth-ach-Tree. *(Rough thorny ſtem, and pinnated leaves.)* The bark is preſcribed for the tooth-ach.

Varieties.

Narrow ſpear-ſhaped-leaved Zanthoxylum.

Broad oval-leaved Zanthoxylum.

2. ZANTHOXYLUM *trifoliatum*, Three-leaved Chineſe Tooth-ach-Tree: *(Leaves three-folicled.)*

They are proper for the ſhrubbery, to increaſe the variety; being generally allowed a warm ſheltered ſituation, and dry ſoil, where they will ſucceed, and exhibit an agreeable diverſity.

They may be propagated by ſeed ſown in the ſpring, in pots placed in the morning ſun all ſummer, and ſheltered in a frame in winter; and in ſpring, if the plants are not come up, plunge them in a hot-bed, to forward them; afterwards place them in the full air till October, when remove them under a frame, to have occaſional ſhelter from froſt till ſpring; then pot them out ſeparately in March, giving ſhelter from froſt a year or two, and then plant them in the full ground.

Likewiſe propagate them by layers of the young wood, and alſo by cuttings in a hot-bed, and by pieces of the root, aſſiſted by the ſame means.

THE

THE
APPENDIX
TO THE
HARDY TREES AND SHRUB *PLANTATIONS.*

IN this place we have only to obſerve a few things relative to the general order of plantations, and the ſeaſons and methods of planting hardy trees and ſhrubs, which, for the moſt part, have been fully treated of under their reſpective articles. Concerning theſe plantations, it may be neceſſary to mention a few particulars in this place.

Theſe plantations are of three kinds, viz. foreſt-tree, fruit-tree, and ornamental.

Foreſt-tree-plantations may be conſidered as conſiſting principally of foreſt-trees for timber, underwood, and for ſhelter; for theſe purpoſes the proper ſorts are pointed out n their reſpective genera, in the general arrangement of the hardy tree and ſhrub diviſion, under the following heads:

Acer,
Aſculus
Betula,
Carpinus,
Celtis,
Corylus,
Cratægus,
Cupreſſus,
Fagus,
Fraxinus,
Ilex,
Juglans,
Juniperus,
Laurus,
Pinus,
Platanus,
Populus,
Prunus,
Pyrus,
Quercus,
Salix,
Sambucus,
Taxus,
Tilia,
Ulmus.

Theſe being the only genera or families of the hardy tree diviſion which furniſh foreſt or timber trees; moſt of the genera furniſhing different ſpecies, more or leſs, ſome few, others numerous, and principally of the large tree kind, growing from twenty or thirty, to fifty and an hundred feet high, in the ſpecies or different genera; they are all proper to plant, both in out grounds for timber, and in coppices for underwood; alſo in parks, paddocks, fields, and large pleaſure groundsfor ornament, variety, and ſhelter; for the particulars of which ſee the reſpective genera as above, where the merits of their ſeveral ſpecies are reſpectively explained.

The ſeaſon for planting foreſt trees may be any time in open weather, from October till March, and, with regard to the order of planting, obſerve generally to have your trees of from two or three, to five or ſix feet, not much larger; they may be planted ſome in cloſe plantations, in rows, only four, five, or ſix, feet diſtance, to admit of thinning, by degrees, every ſeven, eight, or ten, years, after the firſt ſeven, till they are gradually thinned to ten, fifteen, or twenty, feet aſunder, always leaving the moſt thriving to attain full growth at the above diſtance; others may be planted ten or fifteen feet diſtance; plant alſo oak, maple, hazel, poplar, alder, birch, and other deciduous kinds, in cloſe plantations, for coppice wood, to fell every ſeven or eight years.

Fruit-tree plantations are formed in gardens, orchards, and out premiſes, in ſtandards, wall trees, and eſpalier, as already explained under each genera, ſome of which genera afford great variety in their reſpective ſpecies with regard to the diverſity of fruits: all which are inſerted under their proper ſpecies.

They conſiſt of the following: for the Engliſh names of which the reader is referred to the reſpective heads.

Amygdalus,
Corylus,
Cratægus,
Fagus,
Ficus,
Juglans,
Meſpilus,
Morus,
Prunus,
Pyrus,
Ribes,
Rubus,
Sorbus,
Sambucus nigra,
Vitis.

Theſe

Theſe are the principal genera of the fruit kind, moſt of which furniſh different ſpecies of trees, &c. and in ſome the ſpecies are exceedingly prolific in varieties of their reſpective fruits, ſuch, particularly, as the *Amygdalus Perſica*, or peach; the *Prunus*, conſiſting of the plum, cherry, and apricot, as alſo the *Ficus* or fig, and likewiſe the *Pyrus communis* and *Pyrus Malus*, being the pear and apple, all of which furniſh numerous varieties of fruit; the *Vitis* or vine, likewiſe affords varieties of grapes; for the particulars ſee each genera under its proper head, in the general arrangement.

The order of planting fruit-trees is in ſtandards, wall-trees, and eſpalier; and the ſeaſon for planting is in Autumn, at the fall of the leaf, and in the Spring, about February, March, and to the middle of April, or in moderate winters almoſt any time in open mild weather, from November till March, &c. planting the full ſtandards from thirty to forty or fifty feet diſtance; the half ſtandards from twenty to twenty-five or thirty feet aſunder; the wall and eſpalier trees, from fifteen or eighteen to twenty feet apart.

Ornamental plantations are compoſed of a general collection of hardy trees and ſhrubs, variouſly diſpoſed for the embelliſhment of pleaſure ground, parks, fields, and any out premiſes; which plantations may conſiſt both of all, or any of the genera of foreſt or fruit trees abovementioned, in aſſemblage with the other kinds in the hardy tree diviſion, all of which not mentioned in the above liſts of foreſt and fruit trees, may be conſidered of the ornamental kind, or for variety in pleaſure grounds, &c. though, as above noticed, ornamental plantations, may conſiſt both of ornamental trees and ſhrubs, ſo called, as not being calculated for other uſes; and ſome of the foreſt and fruit-tree kinds, becauſe of their greater diverſity in extenſive premiſes.

The order of planting the ornamental is exceedingly various, ſome in continued plantations, round the boundaries of pleaſure-grounds, lawns, parks, paddocks, fields, &c. the trees planted ſome four or five feet aſunder, others ten or twelve, without obſerving exact regularity in planting; leaving generally a ſpace along the middle for a walk or ride, in a winding form, through the

the plantation for ſhade and ſhelter. In other parts, the trees and ſhrubs are diſpoſed in clumps of various forms, dimenſions, and directions; in ſome places the clumps approach near together, others more diſtant and varied, to give the appearance of a ſomewhat natural order: in ſome places have large growing trees diſpoſed in groves, in ſtraight lines, ten, fifteen, or twenty feet aſunder, others in cloſe thickets, ſome placed ſingly on graſs ground, or in ſmall groups, of two, three, four, or five, &c. together, and ſome planted to form walks or avenues, ſo that in extenſive premiſſes, ornamental plantations may be greatly diverſified; but in ſmall gardens, have only a collection of the beſt moderate ſhrub and low growing kinds.

Generally obſerve, in planting, to diſpoſe the taller growing trees or ſhrubs more or leſs backward in the different departments, and the lower growing kinds place forward, in a gradual order, having the loweſt neareſt the front.

THE

THE
Gardener's Pocket Dictionary.

SECOND DIVISION.

HARDY HERBACEOUS PLANTS,

FOR

THE OPEN GROUND,

IN THE

PLEASURE-GARDEN, FLOWER-GARDEN,

AND

KITCHEN-GARDEN, &c.

HERBACEOUS PLANTS compriſe a very conſiderable part of the vegetable creation; being ſuch as are of the nature of an herb, producing leaves and ſtalks annually immediately from the root; and whoſe ſtems are but of one ſummer's duration, remaining green and ſoft, and not becoming woody or durable, but totally periſhing down to the root every autumn, ſoon after they have produced flowers and ſeed; at which period, in ſome ſorts, the leaves alſo periſh, and in other ſorts, root and all, as in the Annual and Biennial tribe.

This diviſion comprehends all ſorts of Flowers, Eſculent and Medical Plants, for the Pleaſure-ground, Flower-garden, and Kitchen-garden, &c. conſiſting of Perennial, Biennial, and Annual Plants, as well of the Fibrous-rooted, Bulbous and Tuberous-rooted, Tap-rooted, Grumous-rooted, Granulous-rooted, as of the Jointed and Fleſhy-rooted kinds, which we are going to particulariſe.

The

The herbaceous tribe is very diſtinguiſhable from the woody kinds, ſuch as trees, ſhrubs, and under-ſhrubs; the ſtems and branches of theſe being ligneous and durable; whereas, in the Herbaceous Vegetables, they always periſh annually: the ſame individual ſtems do not live to flower again, but are ſucceeded by new ones, either from the remaining old root, as in the Perennial kinds; or from entire new plants raiſed from ſeed annually, as in moſt of the Biennial and Annual tribes.

PERENNIAL HERBACEOUS PLANTS, *(Perennials,)* are ſuch as are perpetuated by their perennial or everlaſting roots; which being of many years duration, affording alſo off-ſets for the propagation of the ſpecies, but being moſtly annual in ſtalk, ſend up new ſtems every year, in the ſpring and ſummer, for the production of flowers, fruit, and ſeed; which being effected, the ſtalks die down to the ground in autumn or winter; though ſome particular ſorts, alſo denominated Herbaceous Perennials and Biennials, grow with abiding ſtems, of two or more years' duration, ſuch as Wall-Flowers, ſome Stock-Gilliflowers, Snap-Dragons, &c. as likewiſe ſeveral of the Succulent tribe. However, in far the greater part of Herbaceous Perennials, the ſtems are only annual.

Under this head are comprehended fibrous, bulbous, and tuberous-rooted kinds, &c. increaſing by root-off-ſets, &c. as above ſuggeſted; and theſe compriſe a vaſt number of the Flowery tribe, (by gardeners denominated *Perennials*;) and alſo many kinds of Kitchen-garden Plants, Medicinal Herbs, &c.

The Perennial tribe are propagated by ſeed, root-off-ſets, cuttings, &c. ſo that, being once obtained by either method, they being durable in root, many ſorts increaſe or propagate plenteouſly by root-off-ſets, creeping-roots, cuttings of roots, rooting-ſtalks, cuttings and ſlips of the ſtalks, layers, ſeeds, &c. according to the different ſorts, as exhibited in treating of the various plants under their reſpective genera.

BIENNIAL HERBACEOUS PLANTS, *(Biennials,)* are ſuch as ſubſiſt but two years, as the name imports; generally periſhing, root and top, ſoon after they have flowered and

and ſeeded. Being raiſed from ſeed, &c. one year, producing only a head of leaves that ſeaſon, the next they ſhoot up flower-ſtalks, produce flowers and ſeed, and moſtly either totally periſh ſoon after; or, if any particular ſorts chance to ſurvive till another year, they are then paſt all perfection. A ſucceſſional ſupply muſt therefore be raiſed every year from ſeed; for real Biennials rarely furniſh off-ſets, &c. for propagation, unleſs their flower-ſtalks are cut down early in ſummer, before they arrive to flowering, which, in ſome ſorts, will force out off-ſets at bottom; and ſome particular kinds will propagate by ſlips, or cuttings of the ſtalks, in ſummer, &c. However, the only general method is, to raiſe a freſh ſupply of ſeedlings annually, as in Annual plants.

Biennials comprehend many kinds of beautiful Flowering plants, eminent Kitchen-garden Eſculents, and Officinals for medicine.

ANNUAL HERBACEOUS PLANTS, *(Annuals,)* ſuch as ſubſiſt but one year, riſing from ſeed in ſpring, flower and produce ſeeds in ſummer, and wholly periſh, root and top, in the autumn or winter following: for which reaſon a ſupply of new plants muſt be every year raiſed from ſeed; for real Annuals never furniſh off-ſets of any ſort to perpetuate the ſpecies: ſo that, for raiſing every year's ſucceſſional ſupply, we muſt always have recourſe to ſeed, ſown for the general crops in ſpring; and for ſucceſſional plants of the ſame year, of ſuch as are of but ſhort duration, we alſo ſow in ſummer and autumn, to continue them through the ſeaſon; though in ſome hardy ſorts, thoſe ſown late in autumn abide all the winter in an infant ſtate, and arrive to early perfection the next ſpring or ſummer, a month or two ſooner than the ſpring ſowings of the ſame year. However, for the general ſupply, the ſpring is to be conſidered as the principal ſowing-ſeaſon for Annuals of every denomination.

The Annual tribe compriſe numerous plants, both eminent Flowers, and many valuable Eſculents of the Kitchen-garden, all requiring to be raiſed every year from ſeed; ſome ſown where they are to remain; others, for tranſplantation, at regular diſtances.

The Annual Flowering Plants, commonly called ſimply *Annuals*, comprehend a grand collection, producing ornamental

mental flowers, conſiſting both of Hardy and Tender Annuals; the hardy kinds being ſuch as will grow from ſeed in the open ground; the tender kinds, ſuch as require to be raiſed and forwarded in a hot-bed, in the ſpring, till they obtain a little ſtrength, and the ſeaſon becomes warm; and then planted out, ſome in borders, and others in pots, placed alſo in the open air, to grow to perfection, and ripen their ſeeds.

FIBROUS-ROOTED HERBACEOUS PLANTS, are ſuch whoſe roots are compoſed wholly of a number of radicles, or ſlender fibrous parts, and may be ſaid to be the moſt common ſort of root to numerous Herbaceous Plants. Theſe include thready fibrous roots, fleſhy fibrous roots, creeping roots, ſpreading roots, branching roots, deep-ſtriking roots, horizontal roots, &c.

BULBOUS-ROOTED HERBACEOUS PLANTS, compriſe ſuch as have roots formed of a round or ovaliſh bulb, as in the Onion, Tulip, Lily, &c. conſiſting, ſome of tunicated or coated bulbs, formed of ſeveral tunics involving one another, as in the Tulip and Onion aforeſaid; others, of ſquamoſe or ſcaly bulbs, as in the White Lily, Orange Lily, &c. conſiſting of many fleſhy ſcales, lying over another, *imbricatim*.

TUBEROUS-ROOTED HERBACEOUS PLANTS, conſiſt of thoſe which have their root formed of one or more thick ſolid fleſhy knobs, or tubers, ſome roundiſh, oval, oblong, and others irregularly-knobbed, compoſed either of one ſingle tuber, or ſeveral collected into a head. Examples of the Tuberous-rooted tribe are the Potato, Jeruſalem Artichoke, Peony, Anemone, Orchis, Filipendula, Bulbous Fumitory, Hemerocallis, Turnep, and others which have their root of a fleſhy knobbed form.

TAP-ROOTED HERBACEOUS PLANTS, are ſuch as have a thick, fleſhy, tapering, or tap-ſhaped ſhoot, running down perpendicularly, as in the Carrot, Parſnip, Radiſh, &c.

GRUMOUS-TUBEROUS-ROOTED HERBACEOUS PLANTS, have their roots compoſed of many ſmall, oblongiſh, fleſhy, kernelly-

kernelly-like, knobbed parts, all connected at top, and terminated below in fibres, ſuch as the Ranunculus, &c.

GRANULOUS-ROOTED HERBACEOUS PLANTS, have roots conſiſting of many minute granulous knobs, like grains of corn, cluſtered together, exemplified in White Saxafrage.

JOINTED-ROOTED HERBACEOUS PLANTS, have a longiſh thick root, jointed at equal diſtances, as in Solomon's Seal.

FLESHY-ROOTED HERBACEOUS PLANTS, have roots compoſed of large fleſhy fangs, as in Aſphodel, Lily, &c.

A.

ACANTHUS, BEAR'S-BREECH. Of the claſs and order *Didynamia angioſpermia.*

A genus of herbaceous fibrous-rooted perennials, of tall growth, natives of Italy and Syria; adorned with large, elegant, oblong-jagged, ſcalloped, and lanceolate, thorny and ſmooth leaves, and upright ſtalks, three or four feet high, terminated by ſpikes of monopetalous, ringent-unilabiated three-cleft flowers, with two long and two ſhort ſtamina, and one ſtyle; ſucceeded by roundiſh bilocular capſules, having two oblong fleſhy ſeeds.

The ſpecies are,

1. ACANTHUS *ſpinoſus*, Thorny Jagged-leaved Italian Acanthus. *(Large pinnatifid-jagged ſpinoſe leaves.)*

2. ACANTHUS *ſpinoſiſſimus*, Moſt Spinous Acanthus. *(Leaves pinnatifid, moſt thorny.)*

3. ACANTHUS *mollis*, Soft, or Smooth Scalloped-leaved Italian Acanthus. *(Large ſinuated-ſcalloped ſmooth or thornleſs leaves.)*

4. ACANTHUS *dioſcoridis*, Dioſcorides's Intire-leaved Acanthus, (of Mount Libanus.) *(Lanceolate entire leaves, with ſpinous margins.)*

They are eligible furniture for large flower-borders, and to arrange between ſhrubs, &c. and are propagated by ſeed in the ſpring, in a bed of common earth, and by ſlipping the roots.

ACHILLEA, MILFOIL YARROW, &c. Of the claſs and order *Syngeneſia polygamia ſuperflua.*

It compriſes many herbaceous fibrous-rooted perennials, with pinnated, pinnatifid, lanceolate, and finely-cut divided hoary leaves, and upright ſtalks, from half a foot to one, two, or three feet high, terminated by umbellate and corymbous cluſters of numerous ſmall compound flowers, compoſed of oval imbricated general cups, containing each many tubular hermaphrodite in the diſk, and flat female florets in the circumference; having, in the former, five ſtamina, and one ſtyle; in the latter, no ſtamina; ſucceeded by ſeeds, both in the hermaphrodite and female florets, reſting naked in the receptacle.

The ſpecies are,

1. ACHILLEA *Millefolium, (Millefolium,)* Common Milfoil, or Yarrow. *(Upright furrowed ſtalks, and finely-twice-pinnated naked leaves, cut into linear ſegments dentated.)*

Varieties.

Common White-umbelled Milfoil of the fields.
Purple-umbelled Milfoil.
Variegated Milfoil.

2. ACHILLEA *tomentoſa,* Hoary Milfoil, of Narbonne and Tartary. *(Pinnated hairy downy leaves, with linear indented pinnæ.)*

3. ACHILLEA *Clavennæ, (Clavennæ,)* or Silvery-leaved Auſtrian Milfoil. *(Laciniated, or finely-cut-jagged, plane, obtuſe, hoary leaves.)*

4. ACHILLEA *ſantolina,* Lavender-Cotton-leaved Eaſtern Milfoil. *(Dentated briſtly leaves, with the denticula awl-ſhaped, entire and reflexed.)*

ACHILLEA *abrotanifolia,* Southern-wood-leaved Eaſtern Milfoil. *(Pinnated ſupra-decompound hoary leaves, the ſegments linear, and ſtanding remote.)*

6. ACHILLEA *macrophylla,* Macrophyllous, or Long-leaved Alpine Milfoil. *(Pinnated, cut-ſerrated, plane leaves, the outmoſt largeſt coadjoined.)*

7. ACHILLEA

7. ACHILLEA *pubeſcens*, Downy Eaſtern Milfoil. *(Pinnated leaves, with lanceolate cut-ſawed ſolioles, woolly underneath.)*

8. ACHILLEA *falcata*, Falcated, or Bowed-leaved Eaſtern Milfoil. *(Linear, dentated, obtuſe, plane leaves; the denticles notched.)*

9. ACHILLEA *nana*, Dwarf Hoary Alpine Milfoil. *(Pinnated, dentated, moſtly-hairy-ſhaggy leaves, and glomerated flowers umbel'd.)*

10. ACHILLEA *nobilis*, Noble, or Sweet Helvetian Milfoil. *(Doubly-pinnated obtuſe leaves, the lower ones naked flat, the upper ones downy, and convex corymbous flower, crowded.)*

11. ACHILLEA *cretica*, Cretan Downy Milfoil. *(Linear leaves, with roundiſh imbricated pinnæ, and downy ſtalk.)*

12. ACHILLEA *odorata*, Odoriferous Spaniſh Milfoil. *(Doubly-pinnated, oval, nakediſh leaves, and level-topp'd corymbous flower.)*

13. ACHILLEA *Ptarmica*, (*Ptarmica*,) Common Sneezewort. *(Lanceolate pointed ſharply-ſawed leaves, and white umbels.)*

Varieties.

Single-flowered.

Double-flowered.

14. ACHILLEA *Ageratum*, (*Ageratum*,) Sweet Maudlin. *(Spear-ſhaped, obtuſe, acute-ſawed leaves; white flowers.)*

15. ACHILLEA *alpina*, Alpine Maudlin. *(Spear-ſhaped indented-ſerrated leaves.)*

Theſe Perennials are employed to diverſify the borders of the pleaſure-ground, where they will effect an agreeable variety in their different foliage, and will flower abundantly in ſummer, in conſpicuous white and yellow umbels. The laſt three ſorts are alſo cultivated as medicinal plants.

They are all eaſily propagated by parting the roots, by ſlips and cuttings of the ſtalks in ſummer, and by ſeed in the ſpring, in a bed or border of light earth.

ACNIDA, VIRGINIA HEMP. Of the claſs and order *Dioecia pentandria*.

An herbaceous tall-growing plant of North America, with ſimple leaves, and male and female flowers, on diſtinct plants; having five ſtamina, and two ſtyles.

The ſpecies is,

ACNIDA *cannabina*, Hemp American Acnida, called Virginia Hemp.

It is admitted in ſome gardens for variety, and propagated by ſeeds, ſlips, &c.

ACONITUM, *(Aconite,)* MONK'S-HOOD, or WOLF'S-BANE. Of the claſs and order *Polyandria trigynia*.

This genus compriſes ſeveral tall-growing, herbaceous, tuberous-knob-rooted, flowery perennials, natives of the Alps of Switzerland, Lapland, Siberia, Tartary, Italy, America, &c. remarkable for their poiſonous quality; riſing with upright ſtems, from half a yard to five or ſix feet high; ornamented with large laciniated, or finely-divided multipartite and palmated multifid-fingered leaves, of many nervous lacinia, or ſegments, and terminated by long elegant ſpikes of hood-ſhaped, blue, yellow, and white flowers; having no cups; a corolla compoſed of five irregular diſſimilar petals, the upper one formed like a hood, covering the other parts; numerous ſtamina, three or five germina, and ſtyles; ſucceeded by the like number of unilocular capſules, with angular ſeeds.

The ſpecies are,

1. ACONITUM *Napellus*, *(Nepellus,)* or Early Blue Aconite. *(Leaves cut into many linear ſegments, broadeſt above, and marked with furrowed lines.)*

Varieties.

Blue-flowered.
White-flowered.
Roſe-coloured-flowered.
Variegated blue-and-white-flowered.

2. ACONITUM *Cammarum*, *(Cammarum,)* Greater Violet Monk's-Hood, of Stiria. *(Leaves divided into wedge-ſhaped cut acute lobes, and large violet-coloured flowers, with moſtly five ſtyles.)*

Varieties.

Purple-flowered.
Blue-purple-flowered.

3. ACONITUM *pyrenaicum*, Pyrenæan Fennel-leaved Monk's-Hood. *(Multiparted leaves, with long linear ſegments incumbent, lying over one another, raggediſh.)*

4. ACONITUM *variegatum*, Variegated Italian Monk's-Hood

Hood. *(Multifid leaves, with the ſegments half cut through, broadeſt above.)*

5. ACONITUM *Lycoctonum*, (*Lycoctonum*,) Poiſonous Yellow Aconite. *(Palmated multifid hairy leaves.)*

6. ACONITUM *uncinatum*, Hooked-flowered Philadelphian Monk's-Hood. *(Multilobed leaves, of three, five, or more principal lobes, and the hood of the flower having the apex long-hooked, and the baſe extended.)*

7. ACONITUM *Anthora*, *(Anthora,)* Salutiferous, or Wholeſome Yellow Monk's-Hood. *(Leaves divided into many narrow laciniæ, and flowers having five ſtyles.)*

Varieties.

Yellow-flowered.

White-flowered.

All theſe perennials are proper furniture for the ornament of the pleaſure-ground, in large compartments, ſhrubberies, &c. their finely-divided foliage, and long ſpikes of flowers, afford a conſpicuous variety; but moſt of the ſorts are remarkable for their malignant quality, proving a deadly poiſon. The effluvia of the flowers are likewiſe noxious, though the *Aconitum Anthora* is ſaid to be wholeſome, and is accounted an antidote to the poiſon of all the other ſpecies.

They are all eaſily propagated by parting the roots, of which the leaſt bit will grow; and by ſeed ſown in the ſpring in the common ground.

ACORUS, (*Calamus aromaticus*,) SWEET-RUSH. Of the claſs and order *Hexandria monogynia*.

An aquatic odoriferous perennial, an inhabitant of ditches and watery places; having thick jointed roots, long narrow leaves, and ſpadiceous ſpikes of ſmall flowers, without cups; ſix concave petals, ſix ſtamina, and a trigonous germen, (no ſtyle,) ſucceeded by a triangular three-celled capſule, with oval ſeeds.

The ſpecies is,

ACORUS *Calamus*, *(Calamus,)* Calamus Aromaticus, or Sweet-Ruſh.

Plant it in a moiſt ſoil, or watery ſituation; and propagate it by ſlipping the roots.

ACTÆA, HERB-CHRISTOPHER, or BANE-BERRIES. Of the claſs and order *Polyandria monogynia*.

Tall-growing, fibrous-rooted, flowery perennials; riſing with upright ſtalks, from two to three or four feet high;

large compound-branched leaves, dividing by threes to about twenty-ſeven diſtinct foliola; and long terminal ſpikes of numerous ſnow-white flowers, with four-leaved cups, four obtuſe petals, many filaments, an oval germen with one ſtyle, ſucceeded by globular, unilocular, four-ſeeded berries.

The ſpecies are,

1. ACTÆA *ſpicata*, Spiked European Herb Chriſtopher. *(Ovate ſpikes of flowers, ſucceeded by berries.)*

Varieties.

(Nigra,) Black-berried Spiked Herb Chriſtopher.

(Alba,) White-berried Spiked Herb Chriſtopher.

2. ACTÆA *racemoſa*, Racemoſe Long-Spiked American Herb Chriſtopher. *(Long racemous ſpikes of flowers, and dry unicapſular fruit.)*

3. ACTÆA *Cimicifuga*, *(Cimicifuga,)* Paniculated Siberian Herb Chriſtopher. *(Paniculated cluſters of flowers, and quadricapſular fruit.)* See alſo CIMICIFUGA.

All theſe plants are proper ornamental furniture for the large compartments of the pleaſure-ground, ſhady borders, ſhrubberies, &c. where they will exhibit a fine variety in their branched leaves; and flower conſpicuouſly in June and July. They are raiſed from ſeed, and occaſional root-off-ſets.

ADONIS, FLOS-ADONIS, BIRD'S-EYE, &c. Of the claſs and order *Polyandria polygynia.*

It compriſes annuals and perennials, of buſhy growth, from a foot to half a yard or two feet high, very branchy from the bottom, garniſhed with multifid finely-divided leaves, and the branches terminated by red and yellow flowers ſingly; having five-leaved cups; from five to eight, twelve, or fifteen petals; numerous ſtamina, and many germina collected in a head, ſucceeded by an obtuſe ſpike of naked ſeeds.

The ſpecies are,

(Annual kinds.)

1. ADONIS *autumnalis*, Autumnal Red Annual Adonis *(Red flowers, having eight petals, and almoſt cylindric ſeed-ſpikes.)*

2. ADONIS *æſtivalis*, Summer Yellow Annual Adonis. *(Flowers having five petals, and oval ſeed-ſpikes.)*

(Perennials.)

(Perennials.)

3. ADONIS *vernalis*, Vernal, or Spring-flowering Perennial Adonis. *(Large yellow flowers, with twelve petals, and oval ſeed-ſpikes.)*

4. ADONIS *apennina*, Apennine Perennial Adonis. *(Large yellow flowers, of fifteen petals; and oval ſeed-ſpikes.)*

They flower in ſpring, ſummer and autumn: the Annual kinds, if ſown in autumn, flower early the next ſummer; but, if ſown in the ſpring, do not flower till towards autumn, eſpecially the firſt ſpecies. All the ſorts are proper for the decoration of the flower-compartments. Sow the two annual ſorts in patches, in ſpring or autumn, where they are to remain; and propagate the perennial kinds both by ſeed for tranſplantation, and by root-off-ſets.

ADOXA, HOLLOW-ROOT. Of the claſs and order *Octandria tetragynia*.

A low tuberous rooted perennial, riſing with ſmall, multifid, muſk-ſcented leaves; and ſtalks five or ſix inches high, terminated by ſmall monopetalous, four or five-parted, white flowers, with eight ſtamina, and four ſtyles, ſucceeded by round quadrilocular berries, having four ſeeds.

The ſpecies is,

ADOXA *Moſchatellina*, *(Moſchatellina,)* Moſhatel, or Hollow-Root.

Plant it in the front of borders, moſtly in the ſhade, and between ſhrubs: it is propagated by root-off ſets.

AGERATUM, BASTARD HEMP-AGRIMONY. Of the claſs and order *Syngeneſia polygamia æqualis*.

This conſiſts of fibrous-rooted flowery Perennials, of America; growing with upright ſtalks, from three or four to ſix feet high; adorned with oval-heart-ſhaped, and oval leaves; and terminal bunches of compound white flowers, having an oblong ſcaly general cup, containing many tubular hermaphrodite florets, with five ſtamina, and one ſtyle; ſucceeded by angular ſeeds placed on a naked receptacle.

The ſpecies are,

1. AGERATUM *altiſſimum*, Talleſt Perennial Canada Ageratum. *(Smooth ſtalks, ovate-heart-ſhaped rough leaves, and alternate flowers.)*

2. AGERATUM *Conyzoïdes, (Conyzoïdes,)* or Conyza-like, American Annual Ageratum. *(Hairy ſtalks, and oval leaves.)*

They are proper to adorn the pleaſure-ground. The firſt ſort is the moſt noted. It is propagated by ſeeds, and parting the roots; and the Annual ſort is raiſed from ſeed in a hot-bed, in the ſpring, and in May or June planted out in the borders.

AGRIMONIA, AGRIMONY. Of the claſs and order *Dodecandria dygynia.*

It compriſes three upright perennials, for variety, and medicinal plants, growing with annual ſtalks, from half a yard to a yard high; garniſhed with winged and ternate leaves, and terminal ſpikes of ſmall flowers, with cups five-dented, five plane petals, twelve ſtamina, and two ſtyles, ſucceeded by two roundiſh ſeeds in the calyx.

The ſpecies are,

1. AGRIMONIA *Eupatoria, (Eupatoria,)* Common Officinal Agrimony. *(Pinnated ſtem-leaves having the terminal foliole furniſhed with a footſtalk, and hiſpid fruit.)*

2. AGRIMONIA *repens,* Creeping-rooted Eaſtern Agrimony. *(Pinnated ſtem-leaves having the terminal foliole ſeſſile, and hiſpid fruit.)*

3. AGRIMONIA *Agrimonoïdes, (Agrimonoïdes,)* Three-leaved Italian Agrimony. *(Ternate, or three-folioled ſtem-leaves, and ſmooth fruit.)*

Introduce them in large borders, and fronts of ſhrubbery-clumps, &c. for variety and ornament. They may be propagated by ſeed, and abundantly by ſlipping the roots.

AGROSTEMMA, ROSE-CAMPION. Of the claſs and order *Decandria pentagynia.*

Conſiſts of ornamental flowering perennials, biennials, and annuals; growing with a buſhy tuft of hoaryiſh oval leaves, and upright ſtalks, from about a foot, or half a yard, to two feet high, divided into many branches, terminated by large, ſpreading, red, crimſon and white flowers, with tubular, one-leaved five-parted cups, five broad expanded petals, ten ſtamina, and an oval germen with five ſtyles, ſucceeded by oval unilocular capſules, of five diviſions, containing angular ſeeds.

The noted ſpecies are,

1. AGROSTEMMA *Coronaria, (Coronaria,)* Coronated Italian

Italian Agroſtemma, or Common Roſe-Campion. (*Hoary, ovate-lanceolate, whitiſh leaves, and coronated ſawed petals, end notched.*)

Varieties.

Single Pale-red-flowered Roſe-Campion.
Deep red-flowered Roſe-Campion.
White-flowered Roſe-Campion.
White and Red-flowered Roſe-Campion.
Double Large Crimſon-flowered Roſe-Campion.

2. AGROSTEMMA, *Flos Jovis*, (*Flos-Jovis,*) Jupiter's Flower, or Mountain-Roſe-Campion. (*Hoary leaves, and red flowers, with emarginated petals.*)

Theſe plants are elegant furniture for all parts of the pleaſure-ground: but the Common Roſe-Campion, and varieties, are the moſt noted; of which the double kind has ſingular beauty, in the largeneſs of its flowers, and plentitude of the petals, in many ſeries.

All the ſorts being ſomewhat of a biennial nature, you ſhould raiſe ſome annually from ſeed, ſown in the ſpring, or autumn, in a bed of common earth; and thence plant them in the borders: but the double kind can only be propagated by ſlipping the off-ſets of the head and root in autumn; by which it may alſo be continued in a perennial ſtate.

AJUGA, BUGLE. Of the claſs and order *Didynamia gymnoſpermia*.

Low herbaceous biennial and perennial flowery plants, for variety; growing from five or ſix to ten or twelve inches high, with oboval, oblong, and obtuſe leaves, and terminal whorled ſpikes of many ſmall, tubular, blue, purple and white flowers; having monophyllous five-pointed cups, a monopetalous corolla, with a long, incurved, bilabiated tube, two long and two ſhort ſtamina, four germina, terminating in a ſtyle, and ſucceeded by four naked ſeeds.

The ſpecies are,

1. AJUGA *reptans*, Creeping Bugle. (*Creeping-rooting ſhoots, and obovate leaves.*)

Varieties.

Blue flowered Creeping Bugle.
White-flowered Creeping Bugle.
Purple-flowered Creeping Bugle.

2. AJUGA *pyramidalis*, Pyramidal Swediſh Bugle. (*Tetragonous*

(Tetragonous pyramidal ſpikes of blue flowers, and larger radical leaves.)

3. AJUGA *orientalis*, Eaſtern Inverted Bugle. *(Oval indented leaves, and reſupine inverted flowers.)*

Varieties.

White flowered Eaſtern Inverted Bugle.
Blue-flowered Eaſtern Inverted Bugle.

4. AJUGA *genevenſis*, Geneva Downy Bugle. *(Oblong downy leaves, and hairy flower-cups.)*

Varieties.

Fleſh-coloured-flowered Geneva Bugle.
White-flowered Geneva Bugle.

They moſtly emit trailing-rooting ſhoots, and may be diſpoſed towards the front of borders, and ſhrubbery-clumps, where they will flower early in ſummer, furniſhing ripe ſeed, by which they may be raiſed abundantly; alſo by the rooting-ſhoots, and root-off-ſets.

ALCEA, HOLLYHOCK, or ROSE-MALLOW. Of the claſs and order *Monadelphia polyandria*.

A genus compoſed of tall-growing moſt elegant flowery biennials and perennials; with long thick-branched roots, ſending up many large roundiſh-angulated, and palmated leaves, and between them large upright ſtems, one, two, or three yards high; decorated with leaves, and very large flowers of various colours in the varieties, forming a long ſpike from the middle upward; having each flower two monophyllous, five and ſix-parted cups, a corolla of five large expanded petals, numerous monadelphous ſtamina, united below in a column, a round germen, and ſhort ſtyle, ſucceeded in the germen by a round, depreſſed, arillated, multilocular capſule, each arillus having one large compreſſed ſeed.

The ſpecies are,

1. ALCEA *roſea*, Roſe-Mallow, or Common Oriental Hollyhock. *(Large, roundiſh, ſinuated-angulated leaves.)*

Varieties.

Roſe coloured flowered Roſe-Mallow.
White flowered Roſe-Mallow.
Red-flowered Roſe-Mallow.
Flaming red-flowered Roſe-Mallow.
Blackiſh-red-flowered Roſe-Mallow.
Purple-flowered Roſe-Mallow.
Fleſh-coloured-flowered Roſe-Mallow.

Pale-

Pale-yellow-flowered Roſe-Mallow.
Deep-yellow-flowered Roſe-Mallow.
Variegated-flowered Roſe-Mallow.
Double-flowered Roſe-Mallow, of all the above colours.

2. ALCEA *ficifolia*, Fig-leaved Oriental Hollyhock. *(Divided-palmated, or hand-ſhaped leaves.)*

There are ſeveral varieties, of the ſame colours as the firſt ſort.

3. ALCEA *chinenſis*, Chineſe Carnation Hollyhock. *(Smooth ſtalk, roundiſh leaves, and beautiful variegated flowers, like a Carnation.)*

Theſe plants, being moſtly of majeſtic growth, make a grand appearance when in flower; particularly the doubles, which have ſingular elegance. The two firſt ſpecies grow with ſtrong ſtems, ſix, eight, or nine feet high, and ſucceed any where; and the third has ſlenderer ſtalks, from three to four or five feet, and is tenderer than the other two.

The firſt and ſecond ſpecies are eminent furniture for all parts of the pleaſure-ground, large flower-borders, &c. riſe from ſeed one year, and the next, ſhoot up to ſtalk, producing flowers and ſeed. The ſame ſeed produces both ſingle and double-flowered plants, and the ſtalks decay in autumn; but the root being perennial, new ſtalks riſe in the ſpring; though they rarely flower in ſuch perfection as the one or two-year-old plants, of which it is proper to raiſe a freſh ſupply from ſeed annually, or every two or three years.

The Chineſe Hollyhock is but lately introduced into England: it produces moſt elegant flowers, of a delicate appearance; and the plant is both of an annual and biennial nature; as, being raiſed from ſeed in the ſpring, it will ſhoot up to flower the ſame year; and the plants, if protected from froſt, will abide by the root, and produce flowers the following year.

They are all propagated by ſeed ſown in the ſpring, March or April, in a bed or border of common earth, in ſhallow flat drills, half an inch deep: but it is alſo proper to raiſe ſome of the third ſort in a hot-bed, to forward them to earlier flowering in ſummer; others ſow in a warm border: and when the plants of all the ſorts have two, three or four leaves, plant thoſe of the firſt two ſpecies in nurſery-rows, a foot aſunder, till autumn; then plant them

them out finally: but you may plant the third alſo both in nurſery-beds, for a month or ſix weeks, and at once from the ſeed-bed where it is to remain, to flower the ſame year, ſome in borders, others in pots.

ALCHEMILLA, LADY'S-MANTLE. Of the claſs and order *Tetrandria monogynia.*

A genus conſiſting of three hardy Perennials, for variety in the pleaſure-ground, for the ſingularity of their ſcalloped plaited downy leaves, reſembling the form of a Lady's Mantle; having fibrous roots, ſending up many foot-ſtalked, broad, roundiſh-lobated, digitated, and multifid leaves, and upright ſtalks, branching twelve or fifteen inches high; the branches terminated by cluſters of ſmall apetalous flowers, compoſed of eight-parted ſpreading cups, no petals, four ſtamina, an oval germen, and one ſtyle; and the germen becomes a ſingle compreſſed ſeed in the calyx.

The ſpecies are,

1. ALCHEMILLA *vulgaris*, Common Lady's Mantle. *(Roundiſh leaves, ſcalloped into ſeveral lobes.)*

Variety.

Hairy Silvery Lady's-Mantle.

2. ALCHEMILLA *alpina*, Alpine Digitated Lady's Mantle. *(Digitated, or hand-ſhaped-fingered ſerrated leaves.)*

Variety.

(hybrida,) Hybridan, or Mongrel Leſs Alpine Lady's-Mantle.

3. ALCHEMILLA *pentaphyllea*, Five-leaved Lady's-Mantle. *(Leaves five-folioled, ſmooth; the lobes multifid, or many-cleft, into fingered ſegments.)*

Diſpoſe them any where in the flower and ſhrubbery compartments; and propagate them by parting the roots, and by ſeed.

ALETRIS, *(Aletris.)* Of the claſs and order *Hexandria monogynia.*

One low, tuberous-rooted, flowery perennial, ſending up ſpear-ſhaped leaves, and a low ſpike of oblong flowers, ſix-parted at the brim; ſix ſtamina, and one ſtyle; and a trigonous trilocular capſule, with angular ſeeds.

The ſpecies is,

ALETRIS *farinoſa*, Farinoſe American Aletris. *(Without*

out ſtalk; lanceolate membranaceous leaves, and alternate flowers.)

Plant them, ſome in a warm border, and ſome in pots, to be ſheltered from froſt. It is propagated by off-ſets of the root.

ALLIUM, GARLICK, ONION, LEEK, &c. Of the claſs and order *Hexandria monogynia.*

This compriſes a grand collection of bulbous and fibrous-rooted perennials and biennials, for the kitchen-garden and pleaſure-ground; riſing with long, narrow, plane, and fiſtular, or hollow leaves; and when they ſhoot for flower, produce upright ſtalks, from one to two or three feet high, or more, in different ſpecies; terminated by a roundiſh or oblong ſheath, or ſpatha, protruding a head of many ſmall flowers, of ſix oblong petals, ſix ſtamina, a trigonal germen, with one ſtyle, ſucceeded in the germen by a triangular trilocular capſule, with roundiſh ſeeds.

Kitchen-garden kinds.

Under this head is compriſed, the Garlick, Rocambole, Onion, Welſh-Onion, Cives, or Chives, Eſchalot, or Shallot, Scallion, Leek, Ramſons, &c.

1. ALLIUM *ſativum*, Cultivated, or Common Garlick. *(Compound bulbous perennial root, compoſed of many ſmall bulbs, or cloves; with ſtem-growing narrow plane leaves, and the ſtalks bearing bulbs.)*

Varieties.

Large White-rooted Garlick.

Red-rooted Garlick.

2. ALLIUM *Scorodopraſum, (Scorodopraſum,)* Rocambole, or Small-rooted Mountain Garlick. *(Small, bulbous, perennial root; with ſtem-growing, narrow, plane, fine-notched leaves; two-edged ſheaths, and tall, ſlender ſtalks, bearing bulbs.)*

Variety.

Stalks contorted above, and terminated by a head of bulbs.

3. ALLIUM *Cepa, (Cepa,)* Common Onion. *(Large, bulbous, biennial root; long cylindric radical leaves; and tall, upright, naked flower-ſtalk, with the lower part bellied.)*

Varieties.

Varieties.

Straſburgh, or Common Oval Onion.
Silver-ſkinned Onion.
Large White Spaniſh Onion.
Red Spaniſh Onion.
Portugal Great Oval Onion.
Large Reading Onion.

4. ALLIUM *Cepa*, (*Cambrica*,) Welſh Onion, Scallion, or Ciboules. *(Small perennial roots, not forming bulbs; cylindrical radical leaves, and flower-ſtalks terminated by pyramidal heads.)*

5. ALLIUM *Schoenopraſum*, (*Schoenopraſum*,) Cives, or Chives. *(Small perennial roots, never forming bulbs, growing in bunches; with cylindric-awl-ſhaped ſlender radical leaves, and low naked flower-ſtalks, equalling the leaves in length.)*

6. ALLIUM *Aſcalonicum*, (*Aſcalonicum*,) Eſchalot, or Shallot. *(Oblong, perennial, bulbous roots, in cluſters; awl-ſhaped radical leaves; naked cylindric flower-ſtalk, and ſmall globoſe flower-umbel.)*

7. ALLIUM *Porrum*, (*Porrum*,) The Leek. *(A tunicated, oblong, biennial root; ſtem-growing broad plane leaves, and the flower-ſtalk terminated by a large ſpherical umbel.)*

Varieties.

Broad-leaved London Leek.
Narrow-leaved Leek.
Striped-leaved Leek, for variety.

8. ALLIUM *urſinum*, Bear's Garlick, or Ramſons. *(Small, bulbous, perennial root; ſpear-ſhaped foot-ſtalked leaves; naked, half-cylindric ſtalk, and faſtigiate, or level-topp'd umbels.)*

For the Pleaſure-Ground.

It conſiſts of many ſpecies, moſtly of the Garlick tribe, imparting a ſtrong odour; having principally bulbous roots, ſome moderately large, others as ſmall as Peas, ſhooting up annual flower-ſtalks, from one to two or three feet high, ſome leafy-ſtalk'd, others naked, or without being garniſhed with leaves, crowned by an aggregate and umbellate head of numerous ſmall flowers, appearing together tolerably conſpicuous, forming a good variety in aſſemblage.

9. ALLIUM

9. ALLIUM *Moly*, *(Moly,)* Yellow Moly. *(Spear-ſhaped ſeſſile leaves, naked ſub-cylindric ſtalk, and faſtigiated yellow umbels.)*

10. ALLIUM *magicum*, Magic Garlic, or Greater Broad-leaved Purple Moly. *(Stem-growing plane leaves, and ſtalk umbel bearing, with bulbs growing in the branches of the umbels.)*

11. ALLIUM *flavum*, or Yellow Montpelier Garlick. *(Stem-growing cylindric leaves, and umbels of pendulous pale-yellow flowers, with oval petals; ſtamina longer than the corolla.)*

12. ALLIUM *ſeneſcens*, Seneſcentic, or Fading Siberian Allium, commonly called Narciſſus-leaved Garlick. *(Linear leaves, convex underneath ſmooth; with naked two-edged ſtalk, and roundiſh umbels; awl-ſhaped ſtamina.)*

13. ALLIUM *Victorialis*, *(Victorialis,)* or Elliptical Broad-leaved Alpine Garlick. *(Stem-growing plane elliptical leaves; round umbels, and ſpear-ſhaped ſtamina longer than the corolla.)*

14. ALLIUM *ſubhirſutum*, Hairyiſh White Moly of Dioſcorides. *(Stem-growing plane leaves, the under ones hairy, and the ſtalk bearing white umbels, with awl-ſhaped ſtamina.)*

15. ALLIUM *roſeum*, Roſe-flowered Starry Garlick. *(Stem-growing linear plane leaves; the ſtalk bearing a level-topp'd radiated umbel; oval end-notched petals, and ſhort ſtamina.)*

16. ALLIUM *rotundum*, Round-headed Purple Garlick. *(Stem-growing plane leaves; globular umbels, with lateral nodding flowers; ſtamina three-piked.)*

17. ALLIUM *arenarium*, Sand Bulbiferous Purple Garlick. *(Stem plane-leaved; cylindric vagina, muticated ſpatha, ſtamina three-pointed, and bulb-bearing umbels.)*

18. ALLIUM *ſphærocephalon*, Spherical-headed Italian Purple Garlick. *(Stem cylindric-leaved; ſpherical umbels, and ſtamina three-pointed, longer than the corolla.)*

19. ALLIUM *anguloſum*, Angular Siberian Garlick. *(Linear channelled leaves, angulated underneath; naked two-edged ſtalk, and faſtigiated, or level-topp'd umbels.)*

20. ALLIUM *nigrum*, Black Algirian Garlick. *(Linear leaves; naked cylindric ſtalk; bifid ſharp-pointed ſpatha, hemiſpherical umbel, and large flowers with erect petals.)*

21. ALLIUM *canadenſe*, Canada Bulbiferous Onion-Allium, commonly called Tree-Onion. *(Bulbous perennial root; linear leaves, and tall naked cylindric ſtalk, terminated by heads bearing many bulbs.)*

22. ALLIUM *oleraceum*, Oleraceous Bulb-bearing Swediſh Onion. *(Stem cylindric-leaved bulb-bearing, leaves, half-cylindric, rough, furrowed underneath; ſimple ſtamina.)*

23. ALLIUM *Chamæ-Moly*, *(Chamæ-Moly,)* or Dwarf Italian Moly. *(Stem-naked, almoſt none; leaves plane ciliated; drooping capſules.)*

Culture of the different ſorts.

1. *The* GARLICK *and* ROCAMBOLE.

The GARLICK and ROCAMBOLE, are cultivated principally for medical purpoſes; and the Garlick likewiſe for ſome uſes in cookery. It being an uſeful root in ſeveral caſes, every garden ought to be furniſhed therewith, a moderate quantity for family uſe, and a larger ſupply for ſale.

They are propagated plenteouſly by planting off-ſets of the root, and the cauline, or ſtalk-bulbs; but the Garlick, principally by dividing the main root, or bulb, into many ſeparate cloves, or ſmall bulbs, in the ſpring; and the Rocambole, both by the off-ſet ſmall bulbs of the root, and the cloves produced in the umbels, planted either in autumn or ſpring. Plant each ſort ſeparate, in four-feet-wide beds, in rows, lengthways, either drilled or dibbled in, three inches deep, ſix inches apart in the row, and the rows nine inches aſunder, where they will ſoon come up. Keep them clean from weeds all ſummer, till the end of July, or beginning of Auguſt, when the roots will be arrived to full growth, giving notice by the leaves changing yellowiſh; then take up the bulbs, to be dried, cleaned, and tied in bunches, and hung up in a dry room for uſe.

2. *The* ONION.

The Common Bulbous Onion is well known to all for its great value in numerous domeſtic uſes, the year round; and ſhould be raiſed plenteouſly in every Kitchen-Garden. All the varieties of it grow freely in any common good garden ſoil, in an open ſituation. Chuſe the Common Straſburgh Onion for the main crops, as being the

the beſt-keeping Onion; though the Spaniſh and Portugal kinds alſo arrive to great perfection, obtaining a ſingularly large ſize, particularly the Portugal ſort, and highly merit culture.

All the varieties are raiſed annually from ſeed, ſown where the plants are to remain; which ſhould be performed principally in the ſpring, from about the 20th of February, to the end of March, for the main crops of ſummer, and keeping Onions; but not later than the firſt fortnight of April, unleſs to produce ſmall Onions for pickling; and in autumn, ſome time in Auguſt, for ſmaller crops, to ſtand the winter for green young Onions to draw for ſpring uſe, &c.

Chuſe an open plat of the beſt rich light ground, in the latter end of February, or in March; to which if ſome good rotten dung is added, and dug in one ſpade, it will be of particular advantage: then take an opportunity, while the ground is freſh dug, before rendered too dry, or wet, and either ſow the ſeed broad caſt all over the ſurface, in one continued plat, and trod and raked in; or previouſly divide it into four or five-feet-wide beds, treading out foot-wide alleys between; obſerving, in either method, to ſow the ſeed evenly with a ſpreading caſt, and directly, if light dry ground, tread the ſurface over regularly, to ſettle it evenly, and the ſeeds equally where they fall, eſpecially that ſown in one continued plat, in order that when you ſtand to rake in the ſeeds, it may not ſink in holes; and directly rake the ground regularly with an even hand, trimming off all ſtones; and for that ſown in beds, you may previouſly, before you rake in the ſeeds, lightly pare the alleys with a ſpade, an inch or two deep, caſting the earth on the beds, over the ſeeds; and then rake them evenly lengthways, clearing off all ſtones and hard clods, leaving a regular ſmooth ſurface.

The plants will come up in about three weeks. Keep them very clean from weeds, either by hand-weeding, or ſmall-hoeing; and in May or June, when advanced about three four, or five inches in growth, they muſt be thinned, ſome either by culling them out by hand, as aforeſaid, according as young green Onions are wanted for uſe; or others, eſpecially for the general crop, by ſmall-hoeing them with

a two-inch hoe, in dry weather, cutting up all weeds: and thin out the plants to four or five inches diſtance, that they may have ſufficient room to bulb.

N. B. In the culture of Onions, young plants thereof will ſucceed by tranſplantation, the ſame as Leeks; and may be performed of the thinnings of any particular crops, while the plants are young, five or ſix inches high, or but little more, either of the ſummer crops, early in June, or the winter-ſtanding young plants, in February or March; drawing them up with good roots: and plant them by dibble, in rows, ſix inches aſunder. Giving them water, they will grow freely, and produce large handſome bulbs.

Some time in Auguſt the Onions in general will be arrived to full growth, and the bulbs ſwelled to a mature ſize, their ſtalks and leaves giving notice by ſhrinking, and aſſuming a decaying ſtate; when the Onions ſhould be pulled up in dry days, ſpread in the ſun to dry and harden; then cleaned from rubbiſh, and houſed for future uſe; and they will keep good till the following ſpring.

In winter and ſpring, ſuch of the above keeping Onions as unavoidably ſprout in the houſe, may be picked out, and planted in beds to grow up to draw as Scallions.

3. *Winter Crop.*

Beſides the above general crop of Summer Onions, it is proper to ſow what is called a Michaelmas or Winter crop: being ſown in Auguſt, or early in September, the plants will come up before Michaelmas, and ſtand the winter to draw young, early in ſpring, for ſallads, &c. and ſome alſo to bulb early in ſummer, for kitchen ſervice.

This crop may conſiſt both of ſome of the Common Bulbing Onion, and of the Welſh Onion, for its ſingular hardineſs, which bids defiance to the ſevereſt froſt, when the other ſorts are often cut off, and ſo becomes a deſirable ſubſtitute in early ſpring; though, as being of a ſtronger hot reliſh than the Bulbing Onion, it is leſs eſteemed.

For this crop, both of the Common and Welſh Onion, chuſe a ſpot of light rich ground, open to the ſun, in the firſt fortnight in Auguſt, for the main crop, and towards the latter end of that month, or in the firſt week in September, at lateſt, for ſucceſſion; obſerving to ſow each ſort ſeparate, in beds four or five-feet wide, with foot-wide alleys between: and when the plants come up, you muſt keep them remarkably

remarkably clean from weeds, by hand-weeding, not hoeing, as they will be thinned gradually by drawing them out young for uſe, as wanted.

4. Welsh Onion.

The Welſh Onions never forming any bulb at bottom, and being of a ſtronger-rank taſte than the Common Bulbing Onion, are not proper to cultivate for any general crop: but principally only a few for the winter crop; for being ſo exceedingly hardy as to ſtand almoſt the ſevereſt winter's froſt without injury, it is valuable to ſow in autumn to ſtand the winter, both for drawing the beginning of that ſeaſon, and early in the ſpring, as young green Onions, when the Michaelmas crop of Common Onions happens to be deſtroyed, or to ſupply a family, or markets, till the ſpring-ſown crops of that ſort are fit to draw: for although the leaves of the Welſh Onion, frequently die down to the ground in winter, its roots remain ſound, and at the approach of ſpring, ſhoot up again ſtronger than before.

Sow them in Auguſt, &c. as before mentioned of the Michaelmas crop, and a few more early in September, for ſucceſſion, in four or five-feet-wide beds, thicker than for the Common Onion, as they form no bulb at bottom, and to be all drawn off young. Be careful to keep them very clean from weeds; and as the blade, or leaves of the Plant, often totally periſh in winter, it will be proper towards ſpring, before the roots begin to ſhoot, to dig the alleys, and caſt about an inch or two of the earth evenly over the ſurface of the beds, which will ſtrengthen the roots; and the plants, ſhooting through the earth, will render that part of the ſtalk white, tender, and milder to eat.

5. *Saving the Seed of Onions.*

To ſave Onion ſeed, ſelect a quantity of the fineſt of the dried Houſed Bulbous Onions, in October, November, or in February, each ſort ſeparate; and plant them in drills, four or five inches deep, and a foot aſunder, by nine inches diſtant in the row, allowing between every three or four rows, a ſpace of two or three feet for an alley, to go between, to hoe up weeds, and ſupport the ſeed-ſtalks. They will ſhoot up in the ſpring, arriving to three feet height in June;

June; then ſupport them with ſtakes, and the ſeed will ripen about the end of Auguſt, when cut off the heads in a dry day, ſpread them upon a cloth for a week or two, to dry and harden; then rub, or beat out the ſeed, clean it from the rubbiſh, and bag it up for uſe.

To ſave Welſh Onion ſeed, either in ſpring, reſerve a quantity of the beſt plants for ſtools, in the beds where raiſed laſt autumn; or about the middle or end of March, plant out a parcel of the ſtouteſt of the ſaid young plants, in rows a foot aſunder; and they will ſhoot up and produce ſeeds in Auguſt. The ſame roots, being permitted to remain, will produce a larger quantity of ſeed the year following; and, as they will then be multiplied into conſiderable bunches, they may be divided, if required, into a larger increaſe, when large quantities of ſeed are wanted for ſale.

6. *Of the* Cives.

The *Cives*, or *Chives*, are diminutive plants, the ſmalleſt of the Onion kind, growing numerouſly in bunches, about five or ſix inches high; but they never form bulbs at bottom bigger than peas. They are valued for their early leaves in ſpring, in default of other Onions, for ſallads and kitchen uſes; or, for the ſame purpoſe, you may alſo occaſionally divide the bunches to the bottom, top and root together, into ſeparate ſmall plants, in imitation of young Spring Onions; and the plants being very hardy, remaining ſummer and winter, are deſerving of a place in every garden; and they may be abundantly increaſed by ſlipping or dividing the roots, in ſpring, into ſmall bunches of ſix or eight plants together, and dibbling them in rows nine inches or a foot aſunder.

7. Eschalot.

The *Eſchalot*, or Shallot, being a bulbous plant, is cultivated for its bulbs for domeſtic uſe, in ſummer, autumn, and winter; and is propagated by the off-ſets, or ſmaller bulbs, planted in autumn, about October and November, or in February, or early in March, in drills, or dibbled in three inches deep, in rows nine inches diſtance, by ſix in the row.

They will ſoon come up in the ſpring, increaſe at bottom into many bulbs, in cluſters, and arrive to full growth towards the end of July, or in Auguſt, when the leaves begin

begin to wither: they ſhould then be taken up, dried and houſed for uſe.

8. Leek.

The *Leek* is a moſt uſeful kitchen eſculent for ſoups, broth, &c. and ſo hardy, as to ſtand the ſevereſt winter, retaining its leaves. It ſhould be cultivated abundantly in every kitchen-garden, which is effected by ſeed ſown in the ſpring, both where it is to remain to attain due perfection, and for tranſplantation.

They require good ground, in an open ſituation. The latter end of February, or beginning or middle or ſome time in March, is to be preferred for ſowing the main autumn and winter crops, and April for ſucceſſional crops for the ſpring ſupply; and the ground is to be prepared for the reception of the ſeed, by proper digging, &c.

Sow the ſeed either broad-caſt all over the general ſurface, on one continued ſpace, or in beds, as obſerved for the Onions; and rake it in regularly.

When the plants come up, keep them clean from weeds, by hand-weeding, or ſmall-hoeing; obſerving, that thoſe which are to ſtand where ſown, to attain maturity, ſhould be thinned to five or ſix inches aſunder, or more, becauſe they ſpread conſiderably at top; but thoſe deſigned for tranſplanting, need not be much thinned, only where they riſe in cluſters: and about June, July, and Auguſt, you ſhould plant out a quantity of the ſtouteſt plants thereof, in five or ſix-feet-wide beds, or in one continued plat, previouſly trimming the long fibres of the roots and ſtraggling tops even: then, by line and dibble, plant them in rows lengthways, the bed ſix inches in the line, and nine inches between the rows. Give a good watering directly; and hoe up weeds as they occur, and the plants will grow large and fine.

To ſave Leek ſeed, generally in ſpring, about February or March, plant out a quantity of the largeſt old Leeks, in a warm ſunny ſituation, in rows two feet aſunder, by one foot in the row; giving them water at planting; they will ſhoot up ſeed-ſtalks in May, and ripen ſeed in September.

9. Ramson.

The *Ramſon*, or Bear's Garlick, is ſometimes cultivated for medical uſes, &c. It is propagated by off-ſets of the roots,

roots, when the leaves decay, planted any where in rows a foot aſunder.

10. *The Flowering kinds.*

All the flowering kinds of *Allium* ſerve to diverſify the compartments of pleaſure grounds, where they will flower annually in May, June, and July, in the different ſorts; producing ripe ſeed, and many of them ſmall bulb on the ſtalk; and they may all be propagated by root-offſets, and by the bulbs produced in the umbels, which muſt be ſeparated when the leaves and flowers decay, and only the largeſt taken and planted in the borders, &c.

ALTHÆA, Marsh-Mallow. Of the claſs and order *Monadelphia polyandria.*

This comprehends two or three tall-growing fibrous-rooted perennials, for medical uſes, and variety in the pleaſure-ground. They riſe with annual branchy ſtalks, four or five feet high in the firſt two ſorts; the third is of lower diffuſed growth; and are adorned with large, roundiſh, velvety, and palmated and trifid leaves; and, at the angles of the branches and folia, large reddiſh flowers, having two monophyllous nine and five-parted cups, five heart-ſhaped petals, numerous monadelphous ſtamina, an orbicular germen, and many-pointed ſtyle, ſucceeded by many uniform ſeeds, lodged in the multilocular arillus, and permanent calyx.

1. Althæa *officinalis*, Officinal, or Common Marſh-Mallow (of the Marſhes.) *(Simple, angulated, ſoft, downy leaves.)*

Varieties.

Angulated-pointed-leaved Marſh-Mallow.
Round-angulated-leaved Marſh-Mallow.
Deeply-ſinuated-leaved Marſh-Mallow.

2. Althæa *cannabina*, Hemp-leaved Hungarian Marſh-Mallow. *(Lower leaves palmated, and the upper finely-divided into fingered ſegments.)*

3. Althæa *hirſuta*, Hairy Italian Marſh-Mallow. *(Trifid hairy-hiſpid leaves, ſmooth above.)*

They are introduced into large pleaſure-grounds for variety, and are propagated by ſeed; the firſt ſort alſo by dividing the roots.

ALYSSUM

ALYSSUM, ALYSSON, or MADWORT. Of the claſs and order *Tetradynamia ſiliculoſa*.

It compriſes perennials, biennials, and annuals; ſome growing from one to two or three feet high, and others being of trailing growth; ſome having abiding ſomewhat ligneous ſtalks, and others herbaceous; garniſhed with ſpear-ſhaped linear and ſinuated hoary and ſmooth leaves; and the ſhoots terminated by many cruciform yellow and white flowers, diſpoſed in ſpikes and cluſters, compoſed of four-leaved deciduous cups, four croſs-placed petals, two ſhort and four long ſtamina, oval germen, ſingle ſtyle; and the germen ſucceeds to a round compreſſed end notched pod, with flat ſeeds.

The ſpecies are as follow:

As ſeveral of the ſpecies under this head, have ſomewhat ſhrubbyiſh abiding ſtalks, may alſo, with ſome propriety, be ranged among the ſhrubby tribe; but having an herbaceous appearance, are likewiſe proper to be introduced among the herbaceous plants.

1. ALYSSUM *ſaxatile*, Rock Yellow-Alyſſon of Crete. (*Underſhrubby ſtalks*; *lanceolate, ſoft, waved-ſcalloped, entire leaves*; *and panicles of yellow flowers.*)

2. ALYSSUM *halimifolium*, Sea-Purſlane-leaved White Alyſſon. (*Procumbent perennial ſtalks*; *lanceolate-linear, acute, entire leaves*)

3. ALYSSUM *montanum*, Mountain Hedge-hog'd Alyſſon. (*Underſhrubbyiſh-herbaceous-like, diffuſed branches, and ſub-lanceolate leaves, hedge-hog'd prickly punctured.*)

4. ALYSSUM *deltoïdeum*, Deltoid-leaved Oriental Alyſſon. (*Underſhrubby proſtrate ſtalks, lanceolate deltoid leaves, and hairy pods*)

5. ALYSSUM *ſpinoſum*, Prickly Spaniſh Alyſſon. (*The older flower-branches ſpine-form naked*; *and lanceolate leaves.*)

6. ALYSSUM *incanum*, Hoary Upright Alyſſon. (*Erect ſtalks*; *lanceolate, hoary, entire leaves, and corymboſed flowers.*)

7. ALYSSUM *creticum*, Cretan Yellow Alyſſon. (*Shrubbyiſh-herbaceous-like ſtalks*; *lanceolate, ſub-dented, hoary leaves, and ſwoln pods.*)

8. ALYSSUM *Veſicaria*, (*Veſicaria*) Oriental Veſicaria, or Angle-podded Eaſtern Alyſſon. (*Linear-dentated leaves, and ſwoln angulated acute pods.*)

9. ALYSSUM

9. ALYSSUM *hyperboreum*, Northern American Purple Alyſſon. (*Oval iſh, dentated, hoary leaves, and four two-forked ſtamina.*)

10. ALYSSON *urticulatum*, Bladder-podded Alyſſon. (*Stem herbaceous erect; leaves lance-ſhape, ſmooth, entire; pods inflated.*)

11. ALYSSON *alpeſtre*, Alpine Round-leaved Alyſſon. (*Stems underſhrubbyiſh diffuſed; with roundiſh hoary leaves; coloured calyxes.*)

(*Annuals and Biennials.*)

12. ALYSSUM *ſinuatum*, Sinuated Spaniſh Alyſſon. (*Herbaceous ſtalk; lanceolate, dentated, ſinuated leaves, and ſwelling pods.*)

13. ALYSSUM *clypeatum*, Shield-ſhaped-podded Alyſſum. (*Erect ſtalks, oblong leaves, acute petals, and oval, compreſſed-plane, ſeſſile pods.*)

14. ALYSSUM *calycinum*, Calyx-perſiſting Auſtrian Alyſſon. (*Herbaceous ſtalks, perſiſtent flower-cups, and all the ſtamina indented.*)

15. ALYSSUM *campeſtre*, Champaign, or Field Yellow Spaniſh Alyſſon. (*Herbaceous ſtalk, deciduous cups, and ſtamina attended by a pair of briſtly hairs.*)

Theſe plants are reſidents moſtly of rocky and dry gravelly ſituations, and may be diſpoſed accordingly in ſimilar parts of the pleaſure-ground, or in any of the borders, where they will form an agreeable variety, with their hoary leaves, and flower ornamentally in ſummer, and ripen ſeed in autumn; by which all the ſorts may be propagated: alſo thoſe with durable roots and ſtalks, by offſets, ſlips, layers, and cuttings.

AMARANTHUS, (*Amaranthus*,) FLOWER-GENTLE, LOVE-LIES-BLEEDING, &c. Of the claſs and order *Monoecia pentandria*.

A genus of noted ornamental tender annuals, of tall erect growth, for the pleaſure-ground; natives of India and America; riſing with a ſingle firm ſtem, from two or three to ſix or ſeven feet high, ſome branching pyramidally, others branching out tree-faſhion, with large ſpreading heads, and ſome branching erectly; garniſhed with large, elegant, oval-lanceolate, oblong, and ſpear-ſhaped leaves, ſome beautifully diverſified with two or three colours; and numerous,

numerous, ſmall, apetalous male and female flowers on the ſame plant, collected in lateral roundiſh heads, and terminal ſpikes, in ſome very long and pendulous, in others erect; the flowers having three or five-leaved-coloured permanent cups, no corolla, the calyx ſupplying its place; three or five ſtamina in the males, and in the females three or five ſtyles, ſucceeded by minute, oval, unilocular capſules, with each one ſeed.

The moſt popular ſpecies are,

(*Tendereſt and moſt beautiful kinds.*)

1. AMARANTHUS *tricolor*, or Three-coloured Amaranthus, commonly called Tricolor. (*Tall, pyramidal-branching ſtalk; large, oval-lanceolate, beautifully-three-coloured leaves, and triandrous axillary flowers, collected in ſmall glomerated roundiſh heads round the ſtem.*)

2. AMARANTHUS *melancholicus*, (*bicolor,*) Melancholy-like Two-coloured Amaranthus, commonly called Bicolor. (*Tall pyramidal-branching ſtem; broad, lanceolate, ſharp-pointed, obſcurely-two-coloured leaves; and ſmall, roundiſh, axillary, glomerated cluſters of triandrous flowers cloſe to the ſtalk.*)

(*Hardier, and next beautiful kinds.*)

3. AMARANTHUS *caudatus*, Tailed, or Trailing-ſpiked Amaranthus, or Love-lies-bleeding. (*Strong erect ſtem, branching horizontally; large, oblong-ovate pale-green purpliſh leaves, and pentandrous purple flowers, cluſtered, in very long, compound, thick, cylindric, pendulous ſpikes, reaching to the ground.*)

Variety.

(*maximus,*) Greater Amaranthus caudatus, called Tree Amaranthus. (*Tree-like horizontally-branching ſtem; large, oblong-roundiſh leaves; and thick, very long-pendulous, purple ſpikes.*)

4. AMARANTHUS *ſanguineus*, Blood-purple Bahama Amaranthus. (*Erect purple ſtalks and branches; oval-oblong, purpliſh and red leaves; and compound, erect terminal, red ſpikes, with lateral ones ſpreading.*)

(*Hardieſt kinds.*)

5. AMARANTHUS *hypochondriacus*, Hypochondriacal, or Dark-purple Virginia Amaranthus, called Prince's-Feather. (*Erect ſtalks and branches; large, ovate, ſharp-pointed*

pointed blackiſh-red and purple leaves, and pentandrous flowers, in compound, cluſtered, erect, purple ſpikes.)

6. AMARANTHUS *lividus*, Livid coloured American Amaranthus, or Glomerated Prince's-Feather. (*Tall blueiſh red ſtalks, roundiſh-ovate, blunt, dark-purpliſh leaves, and glomerated triandrous flowers, in roundiſh, ſhort, purple ſpikes.*)

(*Other ſpecies of leſs note.*)

7. AMARANTHUS *cruentus*, Bloody-ſpiked China Amaranthus. (*Blood-red ſtalks, oval-lanceolate purple leaves, and pentandrous flowers, in decompound remote, ſpreading, nodding, blood-coloured ſpikes.*)

8. AMARANTHUS *gangeticus*, Gangetic Indian Amaranthus (from the River Ganges.) (*Reddiſh ſtalk, lanceolate-oval, emarginated leaves, and triandrous flowers, glomerated in oval ſpikes.*)

9. AMARANTHUS *ſpinoſus*, Prickly Indian Amaranthus. (*Branchy ſtalk, having ſpines at the axillas; oblong leaves, and pentandrous flowers in cluſtered cylindric, erect ſpikes.*)

10. AMARANTHUS *paniculatus*, Paniculated American Amaranthus. (*Oblong leaves, with red veins, and pentandrous flowers, in branching cluſtered ſpikes, with the partial ones ſpreading.*)

Of the above ten ſpecies of *Amaranthus*, the firſt, ſecond, third, and the Tree Amaranthus, have the greateſt merit to cultivate for ornament. The next in preference, are the fourth, fifth, and ſixth ſpecies; and of theſe, the *Amaranthus hypochondriacus* and *Amaranthus lividus* are the moſt common, often riſing naturally in the borders from ſelf-ſown ſeeds: however, any of the other ſpecies may alſo be admitted to increaſe the variety.

But the moſt elegantly beautiful of all the ſorts, are the *Tricolor* and *Bicolor Amaranthuses*, principally in their ſingular pyramidal growth, from three to four or five feet high, and elegantly-coloured variegated leaves, admirably ſtained with red, purple, yellow, and crimſon, which, in the *Tricolor*, is remarkably gay and brilliant. The *Bicolor* is alſo very elegant, but the colours not ſo ſplendent; and it aſſumes a more ſolemn aſpect. Both theſe ſpecies are principally cultivated in pots, to arrange in court-yards, or other conſpicuous compartments, and ſome diſpoſed alſo in the grand flower-borders.

Likewiſe

Likewiſe the *Amaranthus caudatus*, including the Tree Amaranthus, growing from three or four to ſix or eight feet high, are noble annuals, in their large ſpreading heads, and vaſt pendulous trailing ſpikes, from half a yard to a yard or more long: but the Tree Amaranthus, particularly, is a ſingular majeſtic plant in its tree-like ſtem, and large, horizontally-branching, widely-extended head; though both theſe ſorts highly deſerve culture for the ornament of large borders.

The fifth and ſixth ſpecies ſerve alſo to diverſify the flower-compartments, in aſſemblage.

Their Culture.

All the ſorts of *Amaranthus* are raiſed from ſeed ſown every ſpring, principally in a hot-bed; being ſown in March or April, and the plants forwarded till the beginning of June, and then placed in the open air, ſome in pots, particularly the *Tricolor* and *Bicolor*; all the others chiefly in the flower-borders.

The *Tricolor* and *Bicolor* require the aſſiſtance of two or three different hot-beds, under frames and glaſſes, to be raiſed in their fulleſt degree of perfection, of at leaſt three or four feet ſtature; but may be obtained of five or ſix, if drawn in deep frames, or a glaſs-caſe.

Let the ſeeds of theſe be ſown in the beginning, or any time in March, in a hot-bed, either in pots, or in the earth of the bed, in ſhallow drills, and very lightly covered with fine mould. When the plants come up, give them air daily; and when they are an inch or two high, prick them down, either in the ſame bed, if of a good heat, or in a larger new hot-bed, in rows four inches aſunder, giving very light watering: and in a month, the plants having advanced in growth, will require more room, when you ſhould prepare another hot-bed of larger ſubſtance, for a deep frame, or a glaſs-caſe; removing the plants therein, when the heat of the bed is moderate, with balls of earth about their roots, and planted ſix inches aſunder; or into pots plunged in the hot-bed; giving water and freſh air; and, according as the plants riſe in heighth near the glaſſes, raiſe the frame at bottom, to give ſcope for them to ſhoot: but, if in a glaſs-caſe, that precaution is not

neceſſary. By the middle, or latter end of June, they will be nearly at full ſtature: you may then place them in the open air, giving plenty of water any dry day.

Sow alſo the *Amaranthus caudatus*, *Tree Amaranthus*, and *Amaranthus ſanguineus*, in a hot-bed, in the middle, or latter end of March; and if ſome of the plants, when an inch or two high, are pricked upon another hot-bed, it will forward and ſtrengthen them conſiderably; and in the beginning of June, plant them out into the borders, &c.

The *Amaranthus hypochondriacus*, and *Amaranthus lividus*, may be raiſed in a warm border; but it is adviſable to ſow them in a hot-bed, to bring them forward, and they may be planted out in May or June.

All the other ſorts may be raiſed in a hot-bed, and planted out as above.

Seed of all the ſorts ripen plenteouſly in autumn, to ſave for future propagation.

AMARYLLIS, Lily Daffodil. Of the claſs and order *Hexandria monogynia.*

A genus of bulbous-rooted beautiful flowering perennials, furniſhing ſome of tolerably hardy growth, for the pleaſure-ground; riſing with long narrow leaves, and naked flower-ſtalks, from three or four inches, or half a foot, to one or two feet high, terminated by a ſheath, producing one or more large yellow and red liliaceous flowers, of ſix oblong petals, ſix ſtamina, a round germen, and ſingle ſtyle, ſucceeded by an oval trilocular capſule with round ſeeds.

The ſpecies are,

1. Amaryllis *vernalis*, Vernal, or Spring-flowering Yellow Spaniſh Amaryllis. *(A ſpatha, having but one yellow flower, with equal corolla, and erect ſtamina.)*

2. Amaryllis *lutea*, Yellow Autumnal Spaniſh Amaryllis. *(A ſheath, producing one low equal yellow flower, having declined ſtamina.)*

3. Amaryllis *atamuſco*, *(Atamuſco,)* American Amaryllis. *(A ſpatha, having one fleſh-coloured equal flower, with a declining ſtyle.*

4. Amaryllis *regina*, Belladonna, or Queen Amaryllis. *(A ſpatha, having many bell-ſhaped, waved equal, red flowers, and declining ſtamina and ſtyle.)*

5. Amaryllis

5. AMARYLLIS *ſarnienſes*, Guernſey Amaryllis, or Lily. *(A ſpatha, having many bright-red revolute flowers, with erect ſtamina and ſtyle.)*

They have all large bulbous roots, which flower annually, the firſt in ſpring, the others moſtly late in autumn, appearing very ornamental. The firſt three ſorts may be planted in any warm border; but the fourth and fifth, which are ſomewhat tender, and produce moſt beautiful flowers, ſhould have a warm, dry, ſheltered border, where they may be occaſionally defended alſo with a frame and glaſſes, during the bloom, and in ſevere winter weather. Plant ſome alſo in pots, to move under occaſional ſhelter. They are all propagated by off-ſets of the roots, when the leaves decay.

AMMI, BISHOP'S-WEED. Of the claſs and order *Pentandria digynia*.

A genus conſiſting of two fibrous-rooted plants, for medicine and variety, &c. an annual and perennial, furniſhed with pinnated and finely-cut leaves, and flowers produced in umbels; having five petals, five ſtamina, and two ſtyles, ſucceeded by ſmall round fruit, with each two ſeeds.

The ſpecies are,

1. AMMI *mazus*, Greater Annual Biſhop's-weed. *(Pinnated lower leaves, with lanceolate ſawed lobes, and upper ones multifid into many linear ſegments.)*

2. AMMI *glaucifolia*, Sea-green-leaved Perennial Biſhop's-Weed. *(All the leaves cut into lanceolate ſegments.)*

They are propagated by ſeed ſown in autumn, or ſpring, in any bed or border of common earth.

ANCHUSA, *(Bugloſſum,)* BUGLOSS. Of the claſs and order *Pentandria monogynia*.

It conſiſts of fibrous-rooted perennials, for medical purpoſes, and variety in the pleaſure-ground, as flowery plants, &c. riſing ſome with upright rough ſtalks, one or two feet high, and others being of trailing growth; garniſhed with ſpear-ſhaped, and oblong rough leaves, and numerous funnel-ſhaped, blue, white, and red flowers, in ſpikes and cluſters; having five-parted permanent cups, a monopetalous tubulous corolla, of five diviſions, five ſtamina, and one ſtyle, ſucceeded by four ſeeds incloſed in the calyx.

The

The noted ſpecies are,

1. ANCHUSA *officinalis*, Common Officinal Bugloſs. *(Erect ſtalks, ſpear-ſhaped leaves, and imbricated ſpikes.)*

Varieties.

Common Blue-flowered Bugloſs.
White-flowered Common Bugloſs.
Red-flowered Common Bugloſs.

2. ANCHUSA *ſemper-virens*, Evergreen Broad-leaved Blue Bugloſs. *(Trailing ſtalks; oblong, broad, rough leaves, and flower-peduncles, having two leaves.)*

3. ANCHUSA *orientalis*, Eaſtern Yellow Bugloſs. *(Hairy-downy ſtalks, oblong leaves, alternate branches and flowers, with oval bractea.)*

4. ANCHUSA *virginiana*, Virginian Small Yellow Bugloſs. *(Low ſmooth ſtalk, and ſcattered bright-yellow flowers.)*

5. ANCHUSA *auguſtifolia*, Narrow-leaved Red Bugloſs. *(Erect ſtalk, narrow leaves, and almoſt naked conjugated red ſpikes.)*

6. ANCHUSA *tinctoria*, Dyeing Red Montpelier Bugloſs. *(Red root, erect woolly ſtalk, ſpear-ſhaped, obtuſe, rough leaves, and red flowers, having the ſtamina ſhorter than the corolla.)*

All theſe plants are perennial, and flower abundantly in long ſucceſſion. In ſummer and autumn the Common Bugloſs is employed as a medical plant; but this, together with all the other ſpecies, merit culture to diverſify the pleaſure-ground; though the firſt and ſecond ſorts are the moſt noted. They are all eaſily raiſed from ſeed ſown in autumn or ſpring, in a bed or border of common earth; from which, tranſplant the young plants, to where they are to remain.

ANDRYALA, DOWNY SOW-THISTLE. Of the claſs and order *Syngeneſia polygamia æqualis*.

Compriſes herbaceous fibrous-rooted perennials and annuals, for variety in the pleaſure-ground, riſing with woolly ſtalks, a foot or more, ornamented with oblong-oval and ſpear-ſhaped downy white leaves, and large compound yellow terminal flowers, having a multifid general cup, containing many hermaphrodite florets, with five ſtamina, and ſlender ſtyle, ſucceeded each by an oval ſeed, crowned with down.

The

The ſpecies are,

1. ANDRYALA *lanata*, Woolly Spaniſh Andryala. *(Oblong-oval, indented, woolly leaves, and branching flower-peduncles.)*

2. ANDRYALA *ragusina*, Raguſian Downy Andryala. *(Spear ſhaped, indented, acute, downy leaves, and flowers growing ſingly.)*

3. ANDRYALA *integrifolia*, Intire-leaved French Andryala. *(Oval-oblong, downy, intire leaves.)*

4. ANDRYALA *ſinuata*, Sinuated Montpelier Andryala. *(Runcinate, or planiform ſinuated leaves.)*

The two firſt are perennial, the others annual, all proper to introduce for variety in the compartments of the pleaſure-ground, and eaſily raiſed from ſeed; the perennials alſo by the roots.

ANEMONE, *(Anemone.)* Of the claſs and order *Polyandria polygynia.*

It furniſhes a grand deſirable collection of tuberous, knob-rooted, and top-rooted beautiful flowering perennials, conſiſting of the *Anemone Pulſatilla*, and *Hepatica*, all ſpecies of the ſame genus; riſing with divided, decompound, digitated, ternate, trilobated and bipinnated leaves, in a cluſter from the root, and amidſt them upright flower-ſtalks, from ſix inches to a foot or more high, terminated each by one multipetalous flower, of various ſizes and colours, in the different ſpecies; having no cup, only a ſort of involucrum, moſtly at a diſtance, ſix or nine petals, diſpoſed in two or three ſeries; numerous ſhort ſtamina, germina, and ſtyles, collected into a head, ſucceeded by numerous ſeeds forming an obtuſe cone.

There are numerous ſpecies, which may be divided into Garden Anemones, Wood Anemones, Pulſatilla, and Hepatica kinds, each as below.

GARDEN ANEMONE KINDS, *having leafy ſtalks.*

Theſe comprehend three ſpecies; the firſt two of which are moſt eminent flowering perennials, furniſhing numerous elegant varieties; having ſmall, tuberous, knobbed, irregular roots, from which riſe ſeveral digitated decompound leaves, divided by threes into many parts; and leafy flower-ſtalk, from ſix or eight to twelve inches high, crowned

crowned by one large flower, of from ſix to nine or twelve petals in the ſingle, but numerous in the double flowers, continued in many ſeries, often to the very centre; ſix large petals, compoſing the outward circumference, and numerous ſmaller ones; the middle forming a globular tuft, called by floriſts the *thrum*.

1. ANEMONE *hortenſis*, Garden Broad-leaved Italian Anemone. *(Digitated, or hand-ſhaped leaves, divided into broadiſh ſegments.)*

Varieties.

Numerous. (See below.)

2. ANEMONE *coronaria*, Coronated, or Narrow-leaved Italian Anemone. *(Radical, ternate, decompound leaves, divided into narrow ſegments, and a leafy involucrum.)*

Varieties of both ſpecies.

Blue Single and Double-flowered Anemone.
Red Single and Double-flowered Anemone.
Purple Single and Double-flowered Anemone.
Crimſon Single and Double-flowered Anemone.
Aſh-coloured Single and Double-flowered Anemone.
Variegated-red and White-flowered Anemone.
Variegated-roſe and White-flowered Anemone.
Variegated-red White and Purple flowered Anemone.
Roliferous-flowered Anemone, one growing out of another.
Semi-double-flowered Anemone.
Full-double-flowered Anemone.

Theſe being the principal varieties, are productive of numerous others of intermediate ſhades, colours, and variegations.

3. ANEMONE *alpina*, Alpine White Anemone of Styria. *(Stalks having ternate-decompound multifid leaves, white flowers, and tailed hairy ſeeds.)*

Varieties.

Greater White Alpine Anemone.
Leſſer White Alpine Anemone.

WOOD ANEMONE KINDS, *and ſuch as have naked flowers.*

Have ſmall, oblongiſh, irregular-knobbed roots, ſending up leaves divided into three principal lobes, and theſe deeply cut on the ſides; and flower-ſtalks from ſix to eight or ten inches high, or more, ſurmounted each by one moderately

moderately-largiſh flower, conſiſting of ſingle and double varieties; inhabitants moſtly of woods, and ſome of mountaneous ſituation, and exhibiting an agreeable diverſity, when introduced in the pleaſure-ground.

4. ANEMONE *nemoroſa*, Common Wood Anemone. *(Leaves divided into deeply-cut folioles, and one flower on the ſtalk,)* Grows naturally in England, &c.

Varieties.

Single White-flowered Anemone.
Double White-flowered Anemone.
Purple-flowered Anemone.
Reddiſh Purple flowered Anemone.

5. ANEMONE *apennina*, Apennine Blue-wood Anemone. *(Leaves divided into deeply-cut folioles, and numerous blue flowers, having ſpear-ſhaped petals.)*

Varieties.

Blue Single-flowered Anemone.
Double Blue-flowered Anemone.
Violet-coloured-flowered Anemone.

6. ANEMONE *ſylveſtris*, German Wood Anemone. *(Leaves having cut folioles, naked peduncles, with white flowers, and round hairy ſeeds.)*

Varieties.

Greater White German Wood Anemone.
Leſſer White German Wood Anemone.

7. ANEMONE *Thalictroides*, *(Thalictroides,)* Goat's-Rue-leaved Virginia Wood Anemone. *(Doubly-ternate radical leaves, thoſe on the ſtalk ſimple, and grow in whirls.)*

Varieties.

Single-flowered Anemone.
Double-flowered Anemone.

8. ANEMONE *Virginiana*, Virginia Wood Anemone. *(Ternate leaves, long alternate peduncles, with ſmall white flowers, and cylindric ſpikes of hairy ſeeds.)*

9. ANEMONE *dichotoma*, Forked-ſtalked Canada Anemone. *(Forked ſtalk; trifid-cut, oppoſite, cloſe-ſitting leaves, embracing the ſtalk.)*

10. ANEMONE *narciſſiflora*, Narciſſus-flowered Auſtrian Wood-Anemone. *(Flowers growing in umbels, and oval, depreſſed, naked ſeeds.)*

11. ANEMONE *ranunculoides*, Ranunculus Yellow Wood-

Wood-Anemone. *(Leaves with cut folioles, two flowers on the ſtalk, and acute ſeeds.)*

12. ANEMONE *quinquefolia*, Five-leaved Virginian Anemone. *(Leaves having five oval ſerrated lobes, and one flower on the ſtalk.)*

PULSATILLA, *or* PASQUE-FLOWER *kinds, having peduncles furniſhed with involucrums near the flower.*

Have long, tuberous, thick, fleſhy, downright, perennial roots; from which riſe bipinnated, digitated, and winged many-parted leaves, and erect ſtalks, eight, ten, or twelve inches high; having a leafy involucrum, near the top, and each ſtalk terminated in one large bell-ſhaped flower, of ſix petals, in two ſeries; but numerous in the Doubles, and are very ornamental garden flowers.

13. ANEMONE *Pulſatilla*, *(Pulſatilla,)* Common Pulſatilla, or Paſque-Flower. *(Bipinnated leaves, leafy peduncles, and flowers having erect petals.)*

Varieties.

Common Single Blue-flowered Paſque-Flower.
Double Blue-flowered Paſque-Flower.
Red-flowered Single and Double Paſque-Flower.
White-flowered Single and Double Paſque-Flower.
Violet-coloured-flowered Paſque-Flower.
Fimbriated, or Fringed-flowered Paſque-Flower.

14. ANEMONE *patim*, Spreading-flowered Siberian Pulſatilla. *(Digitated multifid leaves; peduncles having an involucrum, and a large whitiſh-yellow flower.)*

15. ANEMONE *vernalis*, Early Yellow Swediſh Pulſatilla. *(Pinnated leaves, peduncles having an involucrum, and erect yellow flower.)*

16. ANEMONE *pratenſis*, Meadow German Pulſatilla. *(Bipinnated leaves, peduncles, having an involucrum, and purple flower, with reflexed petals.)*

HEPATICA *kinds.*

Very low tufty plants, having thick, knobby, perennial roots, formed into heads, emitting numerous matted fibres, many roundiſh three-lobed leaves, riſing from the root in a cluſter, and numerous ſlender pedunculi, four or five inches high, furniſhed at top with a three-leaved involucrum,

volucrum, like a calyx, and terminated each by one ſmall flower of ſix oval petals, in the Singles; but in the Double-flowered numerous, all flowering early in the ſpring, before the expanſion of the leaves.

17. ANEMONE *Hepatica*, *(Hepatica,)* The Hepatica, or Noble-Liverwort. *(Leaves divided into three entire lobes.)*

Varieties.

Common Single Blue flowered Hepatica.
Double Blue flowered Hepatica.
Red Single and Double flowered Hepatica.
Red and White Single and Double-flowered Hepatica.
White Single and Double-flowered Hepatica.
Violet-coloured-flowered Hepatica.
Striped-leaved Hepatica.

18. ANEMONE *palmata*, Palmated-leaved Yellow Portugal Hepatica. *(Kidney-ſhaped, lobated, crenated leaves; multifid involucrum; and an hexaphyllous-coloured calyx.)*

General Culture of all the Species.

GARDEN ANEMONE.

The Garden Anemones are early flowers, and admirable ſpring ornaments for the flower-borders. The Single kinds, by floriſts called Poppy-Anemones, are the earlieſt, they often flowering in February, and early in March; but the general bloom of the fine varieties, is principally in April and May, which may be continued two months or more, by different plantings, in October or November, for the early bloom, and in February and the beginning of March, for ſucceſſion, which will afford a grand blow from March or April, until the middle or end of May.

The roots are commonly taken up annually, when the flower and leaves decay; eſpecially the fine ſorts, to ſeparate the off-ſets, as well as to have the opportunity of freſh-preparing the beds, &c. and may be kept out of ground ſeveral months.

They may be purchaſed, from a great collection of ſorts, at the nurſeries, and of the ſeeds-men; the Common ſorts by the pound weight, the capital ones by the hundred.

They

They all ſucceed in any common light earth of a garden, in the open borders; and the fine ſorts ſhould generally be planted together in beds.

Let a quantity of the Common Singles and Doubles be diſpoſed in the different principal flower-borders, in patches, or little cluſters, towards the front and middle, alternately, three, four, or more roots in each patch, two inches deep, and the patches one, two, or three yards aſunder.

The capital ſorts deſigned for beds, ſhould have beds prepared of good, dry, light earth, in an open expoſure, not ſubject to copious moiſture in winter, and the beds formed three feet and a half broad, with half-yard, or two-feet alleys between, and finiſhed with a rounding ſurface. In theſe beds, depoſit the roots in rows, lengthways, nine inches aſunder, either drilled or dibbled in, two or three inches deep, by ſix diſtant, in the rows, and finiſh with light raking, to fill up all cavities, and make the ſurface ſmooth.

The principal culture is, to keep them clean from weeds; and in ſummer, when the flower is paſt, and the leaves and ſtalk decayed, you ſhould take up the roots, particularly of the capital kinds, and ſeparate them from the off-ſets, for increaſe; then dry, and clean them from earth, and put them up in boxes, &c. in the dry, till autumn and ſpring, when they ſhould be planted for next year's bloom.

They all propagate abundantly by root-off ſets, annually, ſeparated from the parent root, when taken up in ſummer, at the decay of the leaf; alſo, by ſeed, to gain new varieties, ſown in March, in a bed of light rich mould, or in boxes, or large pots. Cover it near a quarter of an inch deep, and it will ſoon come up the ſame year. In the ſecond ſummer, when the leaf decays, take up the roots, to be planted in beds to blow, when thoſe of merit ſhould be marked and managed afterwards as directed for the old roots.

The *Alpine Anemone*, ſerves to diverſify the general borders of the pleaſure-ground, and is propagated by root-off-ſets.

Wood-

Wood-Anemones.

All the Wood-Anemone kinds, are very eligible furniture for the borders of wood-walks, wilderneſs-compartments, ſhrubbery-clumps, &c. as alſo for any of the common borders of the pleaſure-ground, as they will ſucceed almoſt any where, and afford a very agreeable early bloom, forming a fine diverſity among other ſpring flowers.

They ſhould be planted in autumn or ſpring. They are propagated plenteouſly by off-ſets of the root, taken up and divided when they are deſtitute of leaves in ſummer and autumn.

Pasque-Flower-Anemone.

The Paſque-Flowers blow very ornamentally in March and April, and deſerve admittance in the common flower-borders, where they exhibit a deſirable variety in flower; the roots being planted where intended, when their leaves are decayed; at which time, you may propagate them by dividing or ſlipping the root-off-ſets.

Hepatica-Anemones.

The Hepaticas are beautiful little tufty plants, flowering profuſely early in the ſpring, February, March, and April, in large compact bunches, exhibiting a very conſpicuous and beautiful appearance, when diſpoſed along the front of the principal flower-borders, adjoining the grand walks; but particularly the Double kinds; though all the varieties are very ornamental ſpring-flowers, highly meriting culture in every garden, the roots being planted in autumn, or early in ſpring.

They are propagated, the Single kinds both by ſeed and parting the roots; but the Doubles furniſhing no ſeed, by parting the roots only, which ſhould be performed in the ſpring; and as theſe increaſe but ſlowly, they ſhould not be divided too ſmall; for the deſirable object is, to have them ſoon form large bunches, to produce many flowers in a cloſe tuft, to appear conſpicuous.

ANETHUM, Dill, alſo Fennel. Of the claſs and order *Pentandria digynia*.

This

This conſiſts of annual, biennial, and perennial umbelliferous plants for the kitchen-garden, having all ſpindling downright roots, ſending up decompound, finely-multifid leaves, divided into numerous, minute, thread-like ſegments; upright ſtalks, from half a yard to three or four feet high, terminated by large umbels of numerous ſmall flowers, of five petals; five ſtamina, and two ſtyles, ſucceeded by two ſeeds.

The ſpecies are,

1. ANETHUM *graveolens*, Rank-Smelling Anethum, or Common Dill. *(Slender upright ſtalks, and compreſſed ſeeds.)*

2. ANETHUM *Fœniculum*, *(Fœniculum,)* Common Fennel. *(Long, thick, fleſhy roots, ſtrong ſtalks, and oval ſeeds.)*

Varieties.

Light-green-leaved Fennel.

Dark-green-leaved Fennel.

Sweet Fennel; with long ſparſed leaves, and large ſweet ſeeds.

3. ANETHUM *azoricum*, Azorian Dwarf Fennel. *(Robuſt dwarf ſtalk, ſwelling, fleſhy, and eatable at bottom, and recurved ſeeds.)*

DILL.

The Dill is annual, cultivated in kitchen-gardens for its leaves, and green unripe ſeed-umbels, to put into Cucumber, and other vegetable pickle, to improve the flavour; alſo the ripe ſeeds, for medicine. It is raiſed from ſeed ſown in the ſpring, in open ground, either in ſhallow drills, nine inches aſunder, or broad-caſt, and raked in; the plants to remain where ſown, thinned and cleared from weeds.

FENNEL.

The Fennel is biennial and perennial; a kitchen-garden plant, for its leaves in culinary uſes, and to garniſh diſhes; and the ſeeds in medicine. It is propagated by ſeed ſown in the ſpring, or autumn, in a bed or border of common earth, in ſhallow drills, a foot aſunder, and the plants to be thinned to that diſtance in the row.

THE END.

BIBL. CANT. ACAD.